

INPUT

STRATEGIC MARKET PERSPECTIVE

Strategy and Positioning of Leading IT Support Vendors Europe 1996

Customer Services Programme – Europe

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Strategy and Positioning of Leading IT Support Vendors, Europe 1996

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Abstract

The IT support marketplace has changed dramatically in the 1990s. At the start of the decade, equipment installation and maintenance were still the principal service offerings of most vendors. Few value-added support services were in evidence.

However, the last few years have seen marked changes in the IT support marketplace, with vendors rapidly expanding their support activities to encompass software products, networks and operational services. Furthermore, vendors have now adopted multivendor services on a widescale basis.

The recent activities of leading support vendors serve to illustrate that, although the driving force of the industry may be customer demand, changes in the IT support market in the 1990s have been brought about by a combination of user pull and vendor push.

This report highlights the ways in which Europe's leading IT support vendors are both responding to market demand, and attempting to influence market development. The report looks at how today's leading IT support vendors are positioning themselves to meet the complex challenges of the 1990s and in particular describes:

- The competitive positioning of leading IT support vendors, including approaches to multivendor service, market orientation and geographical coverage
- The content and scope of the service portfolios of leading IT support vendors
- The service delivery mechanisms used by vendors, including the use of third parties and partnership and acquisition strategies
- Vendors' views on the likely nature of service developments in future.

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***Strategy and Positioning of Leading IT
Support Vendors, Europe 1996***

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Table of Contents

I	Introduction	1
	A. Objectives and Scope	1
	B. Methodology	2
	C. Report Structure	2
	D. Related INPUT Reports	
II	Executive Overview	5
	A. Vendor Push, User Pull — Changing Times for IT Support	5
	B. Vendors Continue Migration to Multivendor Services	8
	C. Support Services Climb The Value Chain	10
	D. Partnerships and Acquisitions Set to Increase	11
	E. Corporate Accounts Dominate, SoHo Market Poorly Served	13
III	Competitive Positioning of Leading IT Support Vendors	17
	A. Broader Horizons for Leading Support Vendors	17
	B. Manufacturers Reposition For Multivendor Services	23
	C. Vendors Use Partnerships For Geographic Reach	28
	D. Vertical Market Orientation Not Strongly in Evidence	32
	E. SoHo Market Poorly Served by Leading Support Vendors	34
	F. Manufacturers Viewed By Most Vendors As Major Competitors	35
IV	Content and Scope of Support Service Portfolios	39
	A. Support Service Portfolios Continue to Expand	39
	B. Principal Services Offered by Leading Support Vendors	43
	1. System Planning and Design	43
	2. Training	44
	3. Equipment Maintenance	45
	4. System Software Support	45
	5. Application Software Support	46
	6. Network Installation and Integration	46
	7. Helpdesk Services	47
	8. Other Services	48
	C. Wide Scope of Equipment Supported	48

C.	Interest in Network Support Services Growing	50
D.	Attention Focusing on Desktop Services	51
E.	Warranty Market Provides Key Source of Support Business	54
F.	Accreditations Key to Desktop Support	55
G.	Remote Services Increasingly Important	56

V	Service Delivery Mechanisms of Leading IT Support Vendors	59
A.	Vendors Rely on Third Parties For Broad Service Coverage	59
B.	Signs of Increased Partnership and Acquisition Activity	61
C.	Future Developments	63

APPENDICES

A	Vendor Questionnaire	67
A.	Competitive Positioning	67
B.	Content and Scope of Offer	71
C.	Organisation and Resources	75
D.	Business Development	76

B	Survey Details	79
A.	Competitive Positioning	79
B.	Content and Scope of Offer	85

C	The Customer Services Market Defined	91
A.	INPUT's View of the Customer Services Market	91
B.	Customer Services Sectors	96
C.	Customer Services Vendors	98
D.	Customer Services Revenue Streams	98

Exhibits

II

-1	Major Changes in IT Support in the 1990s	5
-2	Vendor Orientation	6
-3	Multivendor Service as a Component of the IT Customer Service Market, Europe 1995-2000 (\$ Billions)	8
-4	Leading Multivendor Service Vendors, 1991 vs 1995	9
-5	Proportion of Vendors Offering Advanced Services	11
-6	Use of Third Parties for Key Services	12
-7	Resourcing Multivendor Services by Partnership and Acquisition	13
-8	Proportion of Leading Support Vendors With Vertical Market Orientation	14
-9	Proportion of Leading Support Vendors Offering SoHo Services	15

III

-1	Multivendor Maintenance Top 10 Vendors, Europe 1991	19
-2	Multivendor Services Top 10 Vendors, Europe 1995	19
-3	Top 10 Multivendor Service Vendors - Changes Since 1991	21
-4	How Vendors Categorise Themselves	23
-5	Vendor Positioning, Multivendor Services	25
-6	Supplier Motivations for Multivendor Services	27
-7	Multivendor Services - Strategic or Tactical?	28
-8	Geographic Presence of Leading Support Vendors	29
-9	EUROSERV Members	31
-10	Vertical Markets Targeted by Leading Support Vendors	33
-11	Proportion of Leading Support Vendors Offering SoHo Services	34
-12	Strength of Competition by Vendor Type	36
-13	Companies Identified as Major Competitors	37

IV

-1	Proportion of Vendors Offering Specific Services	40
-2	Vendors' Service Capability Ratings (Self-Assessed)	42
-3	Vendors With A High Dependence On One Product Category	49
-4	Vendors With More Balanced Equipment Service Portfolios	50
-5	Proportion of Vendors With Desktop Services Portfolio	52
-6	Proportion of Vendors Offering Specific Desktop Services	53
-7	Warranty Providers - Typical Examples	54
-8	Proportion of Accredited Software Support Providers	55
-9	Proportion of Vendors Offering Remote Support	57
-10	Proportion of Vendors Offering Specific Remote Services	57

V

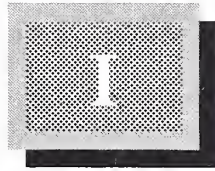
-1	Proportion of Vendors Using Third Parties For Key Services	60
-2	How Vendors Resource Multivendor Services	62
-3	Likelihood of Vendors Adopting Specific Service Directions	64
-4	Proportion of Vendors Definitely Planning Specific Service Developments	65

B

-1	Company Orientation	80
-2	Motivations for Offering Multivendor Services	82
-3	Geographical Coverage	82
-4	Target Market Sectors	84
-5	Multivendor Support Offerings	86
-6	Desktop Service Offerings	87
-7	Remote Support Offerings	88

C

-1	Customer Services Market Structure	93
-2	Software Products Market Structure	95
-3	Customer Services Revenue Streams	99



Introduction

A

Objectives and Scope

The 1990s has been a time of great change in the IT support services industry. Computer technology has continued to downsize and to become more reliable, while product life cycles have continued to shorten. At the same time, the domination of open systems has meant that the variety of available IT equipment and software products has grown enormously.

The net effect is that today's IT user operates in a frequently changing, heterogeneous environment, in which support and service requirements are not only more complex, but also less easy to predict, than in the days of proprietary IT.

IT support vendors have had to respond to the changing nature of user demand, and have found themselves looking beyond traditional services such as computer maintenance, to the wider market for software services, network services and numerous value-added services. The key players in the IT support services market, namely the equipment manufacturers, independent services organisations and the resellers, are all now focusing on delivering higher value services into predominantly *multivendor* IT environments.

This report looks at how today's leading IT support vendors are positioning themselves to meet the complex challenges of the 1990s. The report compares and contrasts the capabilities and strategies of leading support vendors, and provides comprehensive competitive comparisons in areas such as market orientation, breadth of service offer and delivery channels.

B

Methodology

INPUT conducted in-depth interviews with 26 European suppliers of IT support services, comprising equipment manufacturers, independent services organisations and resellers. The interviews set out to position the vendors using a variety of pre-defined criteria.

Data gathered from the interviews was used to compare the competitive positions of the vendors in a variety of graphical forms. The result is a comprehensive map of the capabilities, strengths and weaknesses of 26 of the leading suppliers of IT support services in Europe today.

The analysis was backed up by INPUT's substantial knowledge base on the IT customer services market in Europe. INPUT regularly conducts user research in the leading country markets of Europe, and applies an established methodology for sizing and forecasting the markets for software and services worldwide.

Industry knowledge and market data are supplemented by information from various other sources including vendor annual reports, company press releases and specialised data published by the computer market trade press.

C

Report Structure

The remaining chapters of this report are as follows:

- Chapter II is an executive overview which provides a summary of the key findings of the study
- Chapter III compares the competitive positioning of leading IT support vendors. It describes vendors' perceptions of themselves relative to the competition, and compares vendors' service coverage, market orientation and geographical coverage
- Chapter IV compares the content and scope of the service offerings of leading IT support vendors

- Chapter V discusses the service delivery mechanisms used by vendors, including the use of third parties. This chapter also contains vendors' views on the likely nature of service developments in future
- Appendix A contains the questionnaire used to conduct vendor interviews
- Appendix B provides details of support services supplied by leading vendors in tabular form for easy cross-referencing
- Appendix C defines INPUT's view of the customer services market, and provides detailed definitions of service sectors and delivery modes.

D

Related INPUT Reports

Other INPUT reports which address topics related to the subjects discussed here include the following:

The Future of IT Support - Multivendor Services, Europe 1995-2000

IT Customer Services Competitive Analysis, — Europe 1995

IT Customer Services Market Trends and Forecast — Europe 1995-2000

Delivering Customer Service Through The VAR Channel — Europe 1995

Supporting Client/Server Systems — Europe 1994

Desktop Network Support Opportunities — Europe 1994-1999

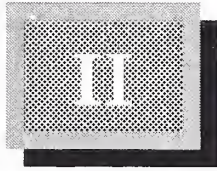
Systems Software Support Contracts in an Open Environment — Europe 1993

Equipment Service Contracts in an Open Environment - Europe 1993

Environmental Services Opportunities in Europe, 1993-1998

Outsourcing Repair Services — Europe 1993-1998

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Executive Overview

A

Vendor Push, User Pull — Changing Times for IT Support

The IT support marketplace has changed dramatically in the 1990s. At the start of the decade, equipment installation and maintenance were still the principal service offerings of most vendors. Few value-added support services were in evidence.

However, the last few years have seen marked changes in the IT support marketplace, as illustrated by Exhibit II-1.

Exhibit II-1

Major Changes in IT Support in the 1990s

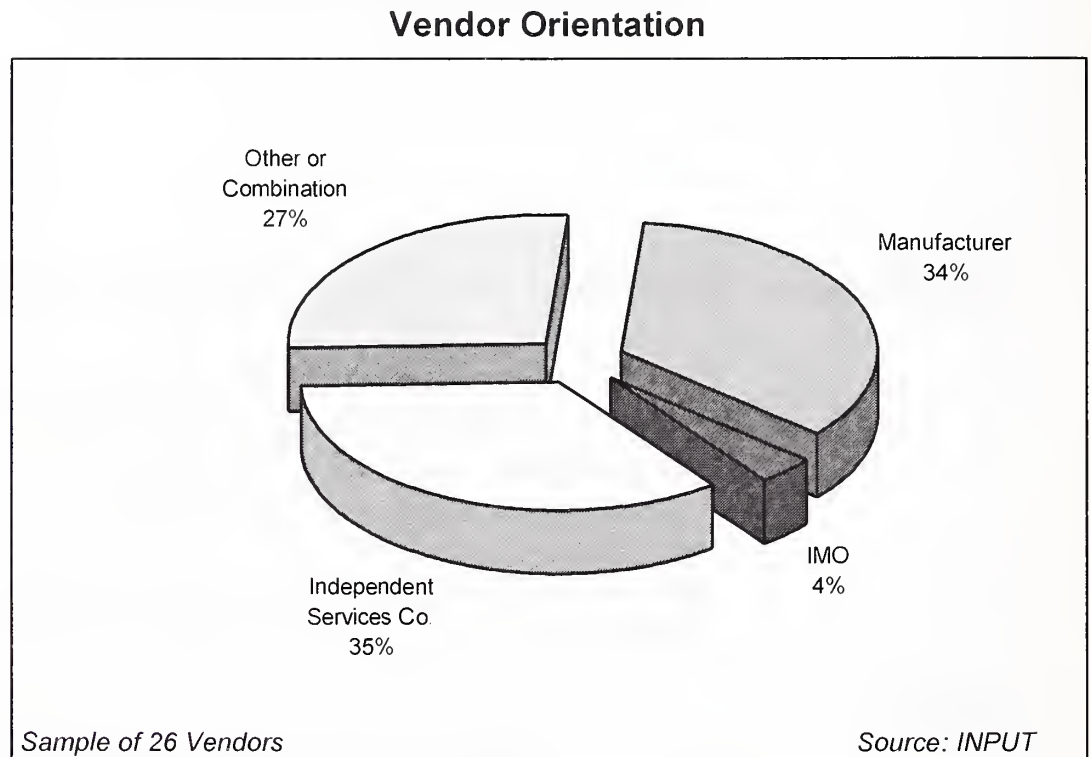
- Rapid expansion of the range of support services offered
- Downsizing, with new focus on the LAN and desktop
- Widescale adoption of multivendor services
- Transition of manufacturers to service providers, system integrators
- Growth in service partnerships, mergers and acquisitions
- Emergence of channel players as support service competitors
- Development of the outsourcing companies
- Shake-out in the independent maintenance market

Source: INPUT

Many of today's leading support services vendors view themselves as independent service companies, although they may have their roots in computer manufacture.

Exhibit II-2 shows how the vendors interviewed for this study currently classify themselves.

Exhibit II-2



Those vendors who still consider themselves to be primarily computer manufacturers include Amdahl, Compares, Data General, Sequent and Sun Microsystems. Most others have repositioned themselves in response to changing market conditions, including:

- ICL, which already generates 50% of its revenues from software and support, acquired Sorbus in 1995. The new company ICL Sorbus considers itself to be a supplier of generic multivendor IT services
- Digital acquired the service operation of Philips and formed the Multivendor Customer Services (MCS) Division. This provides services on its own and other products and is currently the largest multivendor service provider in Europe

- Olivetti and Bull found that declining product revenues were causing severe problems and have looked to bolster their finances with substantial service offerings. Both have made several acquisitions in Europe in recent years
- Unisys has reduced its dependence upon hardware manufacture and prefers to be known as a system integrator
- Norsk Data and Wang withdrew from hardware manufacture entirely and, with recent acquisitions, are fast turning into independent services companies
- IBM and Hewlett-Packard were once strong advocates of maintenance by the original manufacturer, but have adopted multivendor services aggressively and trebled their market share in only three years.

The activities of these vendors serve to illustrate that, although the driving force of the industry may be customer demand, the changes made by the major manufacturers come a close second. The changes in the IT support market in the 1990s have been brought about by a combination of user pull and vendor push.

This report highlights the ways in which Europe's leading IT support vendors are both responding to market demand, and attempting to influence market development. The report describes the following vendor activities:

- Continued migration to multivendor services
- Development of broad portfolios based around higher value services
- Strategic use of partnership for improved service coverage
- Continued focus on the generic corporate market rather than specific vertical markets, and at the expense of the SoHo market.

B

Vendors Continue Migration to Multivendor Services

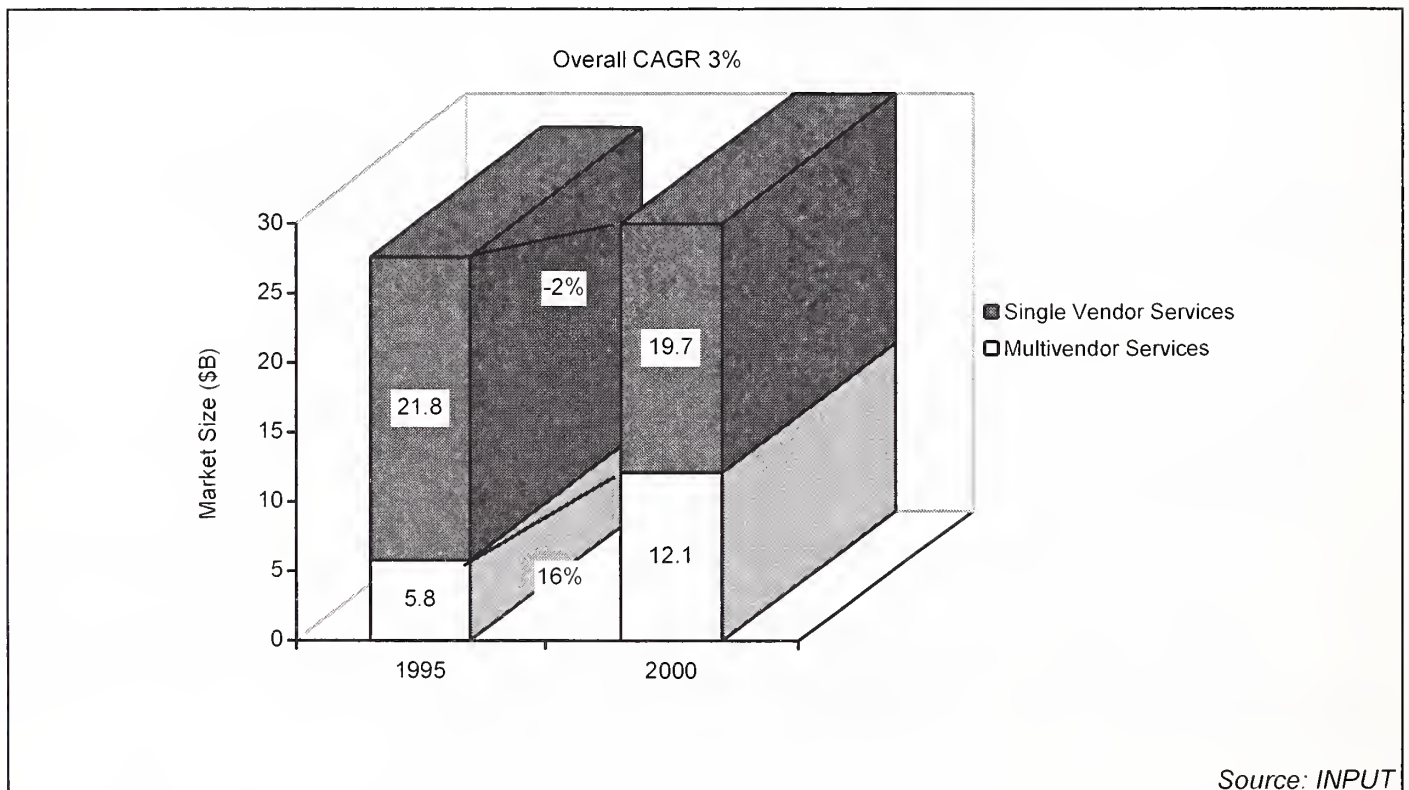
One of the key characteristics of the 1990s so far has been the rate at which support vendors have adopted multivendor services.

The size of the European multivendor services market is now double what it was in 1991. In part this is due to the continuing evolution of computing from the corporate datacentre to distributed client/server architectures consisting of equipment and software products from many suppliers.

Exhibit II-3, reproduced from INPUT's report *The Future of IT Support - Multivendor Services in Europe 1995 - 2000*, illustrates that multivendor service contracts are forecast to represent 38% of the total IT customer services market by the year 2000.

Exhibit II-3

Multivendor Service as a Component of the IT Customer Service Market, Europe 1995 - 2000 (\$ Billions)



All of the vendors interviewed stated that customer demand was the key reason for their continued migration to multivendor services. However, some also consider multivendor services as a way of entering new accounts.

Eighty-seven per cent of vendors consider multivendor service as a strategic direction rather than a tactical response to individual customer needs. The computer manufacturers have, in the main, fully embraced the concept of multivendor support.

Exhibit II-4 shows a comparison of the leading multivendor service providers in 1991 and 1995.

Exhibit II-4

Leading Multivendor Service Vendors, 1991 vs 1995

1991		1995	
Vendor	Multivendor Revenues (\$m)	Vendor	Multivendor Revenues (\$m)
Granada	260	Digital	530
Olivetti	230	ICL Sorbus	470
Thomainfor	225	Olivetti	430
Digital	105	Getronics	280
Sorbus	97	ICG	230

Source: INPUT

In 1991, multivendor services related primarily to equipment service. Since then, the market has responded to user demand for a much broader range of services and today, INPUT uses the term *multivendor services* to include not just services which are equipment-related, but all services related to the support of the IT infrastructure. This includes the provision of software support and network support, plus the various types of value-added service (e.g. help desk services, training, asset management, etc.).

The changes amongst the leading vendors can be explained to a large extent by this fundamental shift in the market. It is also notable,

however, how Digital, Olivetti and ICL (Sorbus) have strenthened their positions considerably in the last few years. Each of these vendors operates as an independent multivendor services business unit.

C

Support Services Climb The Value Chain

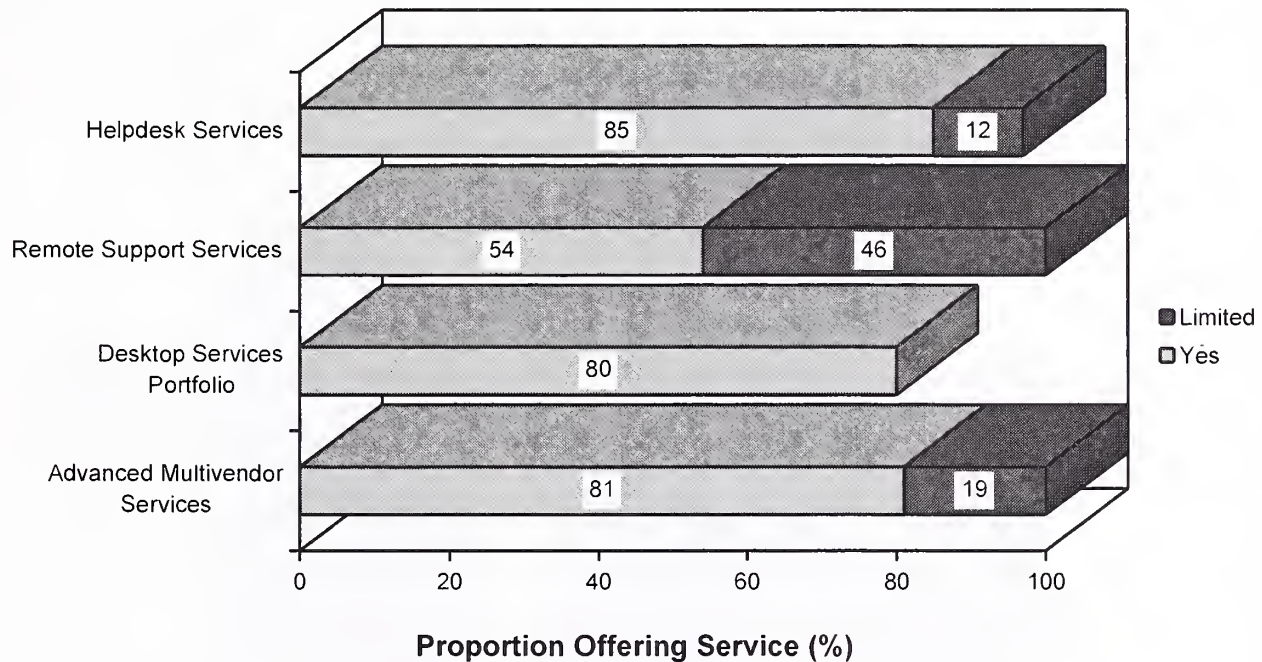
Not only are support vendors offering a much broader range of multivendor product services, but increasingly higher value services are being promoted. Examples include managed desktop services, incorporating helpdesk services, remote support services, plus various services related to equipment and software asset control.

Vendors are not only responding to user demand for more sophisticated services; they are continually seeking new ways of achieving higher margin business. Hence, vendors are increasingly promoting their ability to work closely with customers as service partners, supplementing in-house activities at various points on the IT services lifecycle. In many cases, vendors who once offered pre-sales consultancy for free are now generating good revenues from consultancy services.

Desktop, networking and software services are becoming commonplace together with services throughout the product lifecycle, from purchase through to disposal. Product procurement and acquisition are now considered a service by some companies.

Exhibit II-5 presents a sample of the advanced services on offer from leading support vendors today.

Exhibit II-5

Proportion of Vendors Offering Advanced Services

Sample of 26 Vendors

Source: INPUT

D**Partnerships and Acquisitions Set to Increase**

Few vendors have the internal resources to deliver a broad range of services themselves, and the use of third parties for service delivery is widespread. Exhibit II-6 illustrates how few companies, even the large IT support vendors, can provide all of the services themselves.

Exhibit II-6

Use of Third Parties for Key Services



Sample of 26 Vendors

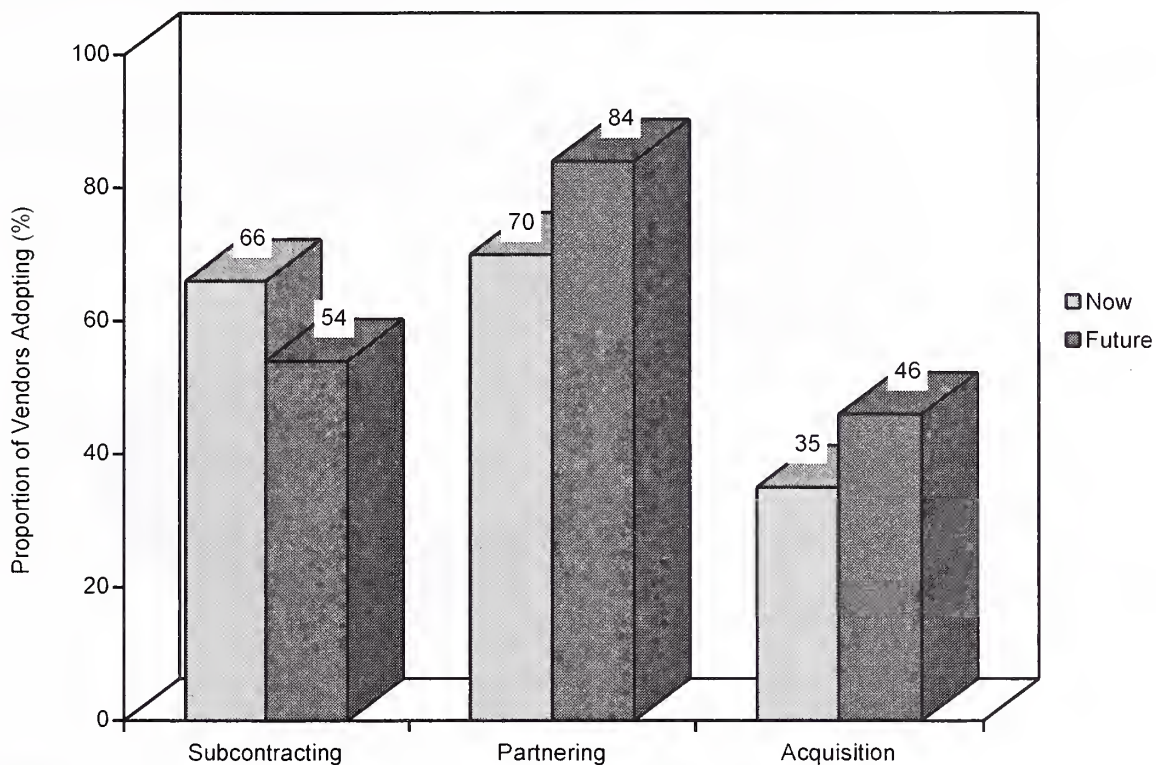
Source: INPUT

Some strongly product-focused vendors, including Sequent and Sun Microsystems make extensive use of third parties as strategic partners to provide equipment maintenance on their behalf, and this looks set to continue.

However, while many vendors currently rely on tactical use of subcontractors for delivering selected services to their customers, dependence upon subcontracting is expected to reduce in the future.

In order to provide the range of services required, and to face competitive threats, partnerships and acquisitions are expected to increase in number, as illustrated by Exhibit II-7. Some vendors, including Bull, Digital, ICL, Olivetti and Wang have already started along the acquisition route. Others look set to follow.

Exhibit II-7

Resourcing Multivendor Services by Partnership and Acquisition

Sample of 26 Vendors

Source: INPUT

E**Corporate Accounts Dominate, SoHo Market Poorly Served**

Many of the leading IT support vendors take their market orientation from the sectors where they have traditionally sold products. Manufacturers first and foremost look to their own product customers as a source of service revenues. In many cases, manufacturers are initially encouraged to offer multivendor services as a result of pressure from a few influential product customers.

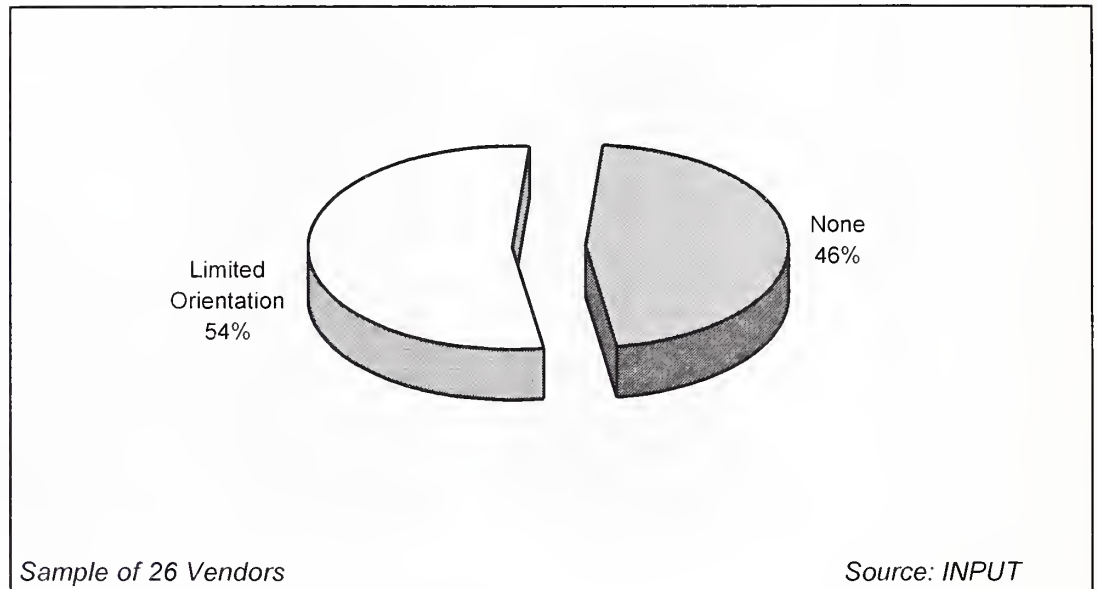
Few IMO's segment their marketplace, and hence they consider customers from any industrial sector. However, there are exceptions; for example, Computeraid, with its origins as part of Thorn EMI, has a strong presence in the retail sector.

The evidence from this survey suggests that overall, the leading support vendors continue to concentrate on large corporate accounts

across a variety of vertical markets. As shown in Exhibit II-8, almost half of those interviewed claim that their services are not targeted at any specific market sector. Of the other half, most vendors claim to major in certain sectors such as Banking & Finance but very few are organised along specific vertical market lines.

Exhibit II-8

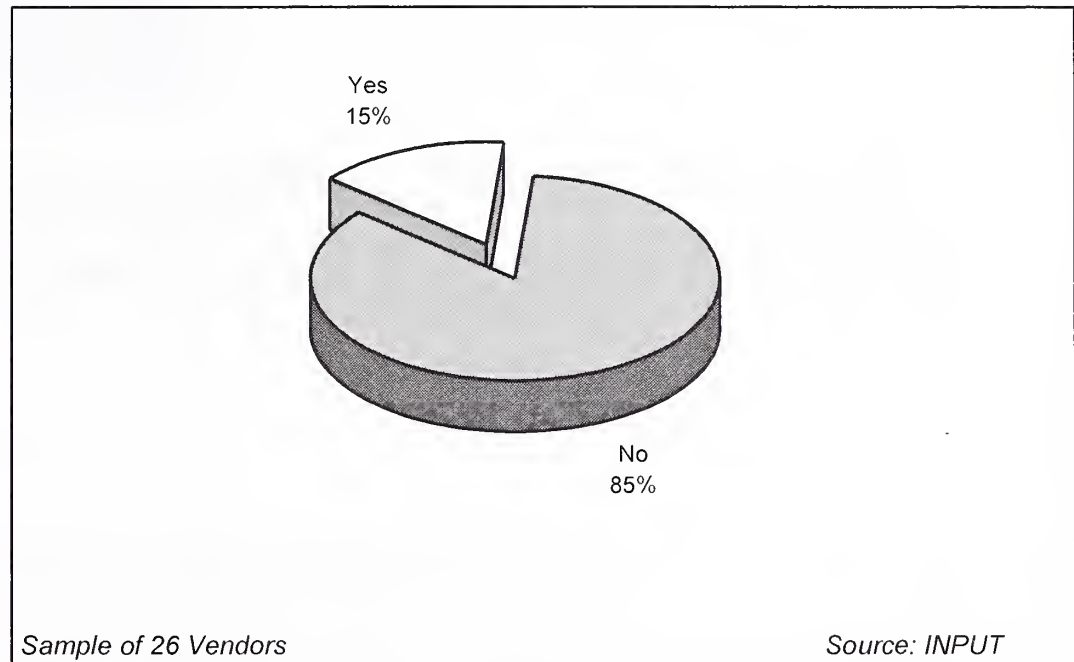
Proportion of Leading Support Vendors With Vertical Market Orientation



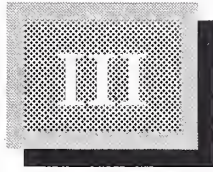
Focus on the larger corporate accounts would seem to be at the expense of the smaller, but fast-growing Small Office, Home Office (SoHo) marketplace.

Although the SoHo market is reputed to be the fastest growing area for product supply, it is particularly poorly served by the leading IT service suppliers. Exhibit II-9 indicates a lack of attention given to this type of customer. At present, smaller, localised service providers tend to be meeting the needs of SoHo users more cost-effectively than the larger suppliers.

Exhibit II-9

**Proportion of Leading Support Vendors
Offering SoHo Services**

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Competitive Positioning of Leading IT Support Vendors

A

Broader Horizons for Leading Support Vendors

The IT support marketplace has changed dramatically in the 1990s. At the start of the decade, equipment installation and maintenance were still the principal service offerings of most vendors. Few value-added support services were in evidence.

However, the last few years have seen the following changes in the IT support marketplace:

- Rapid expansion of the range of support activities offered by most vendors (encompassing software products, networks and operational services)
- Widescale adoption of multivendor services by many manufacturers
- Withdrawal of some companies from manufacturing and their transition into service providers or system integrators
- Growth in numbers of service partnerships, mergers and acquisitions, including the purchase of several TPM companies by major manufacturers
- Emergence of a few large resellers offering services on a national or multinational basis
- Growth of outsourcing companies

- Recognition by IMOs (TPMs) of the need to expand their support activities.

Today, the main categories of support vendor remain unchanged from the start of the decade; they are:

- Computer manufacturers, originally focused on supporting their own products, but now operating in the multivendor marketplace
- Independent Maintenance Organisations (IMOs), whose main activity is still equipment maintenance
- Resellers, usually relatively small, with limited service offerings focused on their own customer base, limited product range and local geographical area.

However, while the key players remain largely the same, new players have begun to emerge, including the professional services companies, outsourcing vendors and telcos. Furthermore, there has been considerable jockeying for position amongst the leading vendors, as illustrated by a comparison of INPUT's multivendor rankings in the years 1991 and 1995.

Exhibit III-1 shows the European top 10 vendors in *multivendor maintenance* in 1991. Exhibit III-2 shows the European top 10 vendors in *multivendor services* in 1995.

Exhibit III-1

Multivendor Maintenance Top 10 Vendors, Europe 1991

Company	Multivendor Revenues (\$ Millions)	Market Share (%)
Granada	257	9.6
Olivetti	229	8.6
Thomainfor	225	8.5
Digital	105	3.9
Sorbus	97	3.6
Getronics	96	3.6
Nexor/Telub	63	2.4
ACT	51	1.9
NCR	40	1.5
Computeraid	39	1.5
Others	1468	55.0
Total	2670	100

Source: INPUT

Exhibit III-2

Multivendor Services Top 10 Vendors, Europe 1995

Company	Multivendor Revenues (\$ Millions)	Market Share (%)
Digital	530	9.1
ICL Sorbus	470	8.1
Olivetti	430	7.4
Getronics	280	4.8
ICG	230	4.0
IBM	225	3.9
Bull	225	3.9
Granada	210	3.6
Hewlett-Packard	190	3.3
Thomainfor	130	2.2
Others	2880	49.7
Total	5800	100

Source: INPUT

At the time of the 1991 survey, *multivendor* was a term used only in relation to equipment maintenance. However, INPUT has tracked the evolution of this market as it has grown to encompass a much wider range of activities. Today, INPUT uses the term *multivendor services* to mean various contracted support services which relate to equipment or software from more than one vendor. This market is described in detail in the recent report *The Future of IT Support - Multivendor Services, Europe 1995*.

Customer awareness and acceptance of multivendor services, together with the continued trend towards client/server computing, have been key drivers for change in the 1990s.

Exhibit III-3 reviews the top 10 vendors in 1995, commenting on the changes they have made in their service approach between 1991 and 1995.

Top 10 Multivendor Service Vendors - Changes Since 1991

Company	Service Changes in the 1990s
Digital	Creation of the Multivendor Customer Services Division and extensive marketing of its service capabilities are reflected in its growth in this marketplace.
ICL Sorbus	Merger of ICL Customer Service and Sorbus to create powerful multivendor services player with broad geographic reach. New organisation owes much to the advanced service processes and culture of the former Bell-owned Sorbus Europe.
Olivetti	Increased emphasis on multivendor service and system integration skills. Major push into desktop services and network management. With Barclays Bank, has the largest multivendor maintenance contract in Europe.
Getronics	Continued expansion of its service operation. New service partnerships with Sorbus and ITS to expand services and broaden geographical coverage. Looking to expand presence outside home market. Recent alliance with Roccade Informatica Group, to buy out privately-held Raet NV.
ICG	Successfully growing its reseller operation and adding more services to its portfolio.
IBM	Increased emphasis on multivendor services, which is increasingly regarded as core business. In the UK, merged ServicePlus business into its normal customer service operation. Currently reorganising worldwide customer service organisation.
Bull	Expanding service and system integration operations. Focusing on Europe and divesting in USA and Canada. Making strategic moves into networking and desktop services.
Granada	Still promoting its stance as the largest independent maintainer in Europe. Possibly has been a little slow to develop a wider service portfolio.
Hewlett-Packard	Product sales still growing rapidly and H-P promoting its quality image across a wide ranging service portfolio. Has changed from being an opponent of non-manufacturer maintenance to a strong proponent of multivendor services.
Thomainfor	Although facing some decline in its traditional home market (France), Thomainfor remains a major player in Europe.

Source: INPUT

The majority of computer manufacturers have embraced the concept of multivendor services as a key feature of service and support strategy. Some companies have changed from being stern critics of the IMO (TPM) industry to becoming strong advocates of multivendor service and support.

Digital has doubled its market share of the multivendor marketplace between 1991 and 1995, and IBM and Hewlett-Packard, which each held approximately 1% market share in 1991, have trebled their share in the intervening years.

However a few still perceive themselves first and foremost as manufacturing companies and offer multivendor services as a tactical response to the threat from the IMO sector or that of other manufacturers encroaching on their base.

Many of the independent companies have recognised the growing threat from the manufacturers and have attempted to counter this threat by even keener pricing and introduction of a much wider range of service offerings.

Many manufacturers have a global presence which few independent maintenance organisations can rival. However, some manufacturers acknowledge the experience and expertise of companies in the independent sector and acquisitions are becoming more frequent.

Some attempts have been made by independents to form strategic alliances to provide a wider geographical coverage, but on the whole, the IMO sector of the industry is still characterised by local companies with world-wide players in the minority.

A few resellers offer a wide range of services but these, on the whole, are fewer in number (and the companies of a smaller size) than the other service suppliers in the market.

The larger resellers have had some success in offering services, most notably Getronics and the International Computer Group (ICG), but others are often still motivated by the need to achieve substantial product sales revenues.

The professional service companies offering outsourcing services have tended to be slow in introducing multivendor support services, preferring to concentrate on providing operational services.

In some cases, other companies, especially IMOs, have benefited by forming close links with these professional services companies and providing support to the clients of these companies.

The professional services operations of some manufacturers have been expanded to counter the perceived threat from these new entrants.

Similarly, some organisations perceive a growing threat from the telephone companies; however there is little evidence of this yet.

B

Manufacturers Reposition For Multivendor Services

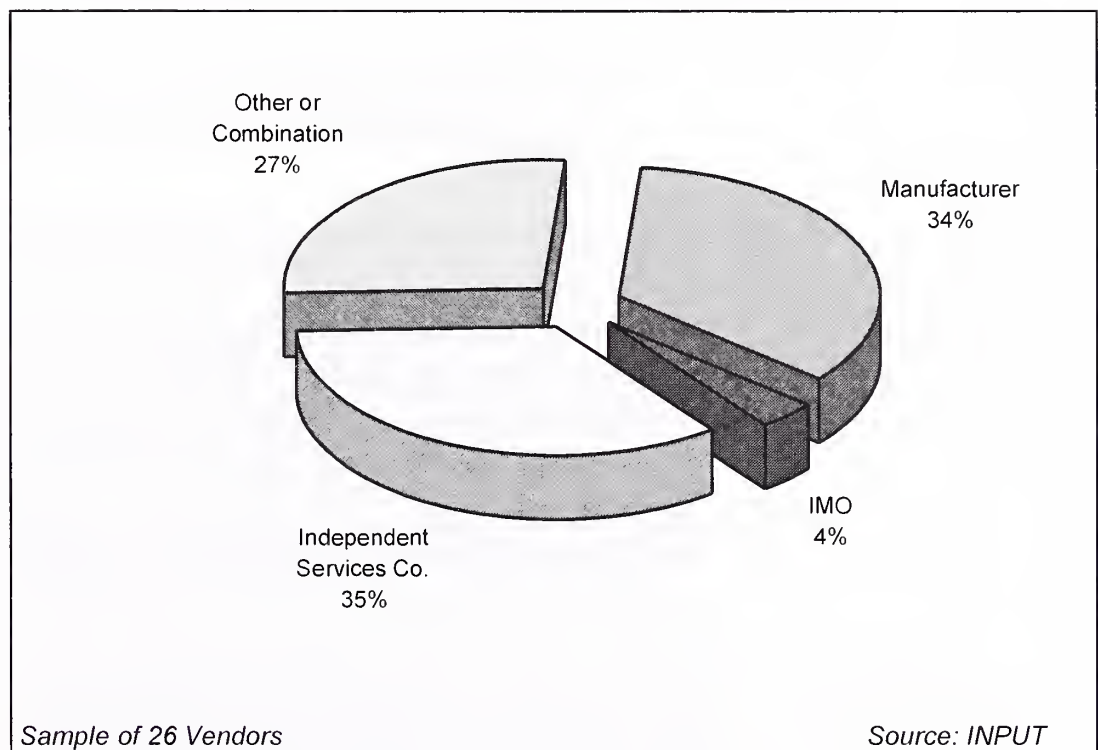
Question 1 asked vendor organisations to categorise themselves as one of the following:

- Equipment manufacturer
- Independent maintenance organisation (IMO)
- Independent services company
- Other.

Exhibit III-4 indicates the perceptions of those interviewed.

Exhibit III-4

How Vendors Categorise Themselves



In practice some companies view themselves as a combination of these categories; for example, some see themselves as partly manufacturer, partly independent services company.

However, it is noticeable that fewer companies see themselves as manufacturers today than in similar surveys conducted at the start of the decade. Some companies, such as Norsk Data and Wang, no longer manufacture products in any form. Others, such as Bull, Unisys and Olivetti, although still manufacturing some products, perceive their future to be in the services marketplace.

Those that still consider themselves to be first and foremost manufacturers include Amdahl, Comparex, Data General, Sequent and Sun Microsystems. Storage Technology still considers itself to be a manufacturer, although in the UK its service operation derives more than a third of its revenues from multivendor support.

It is also interesting to note that of the IMOs, several now consider themselves to be independent services companies offering a wider portfolio of services than mere maintenance.

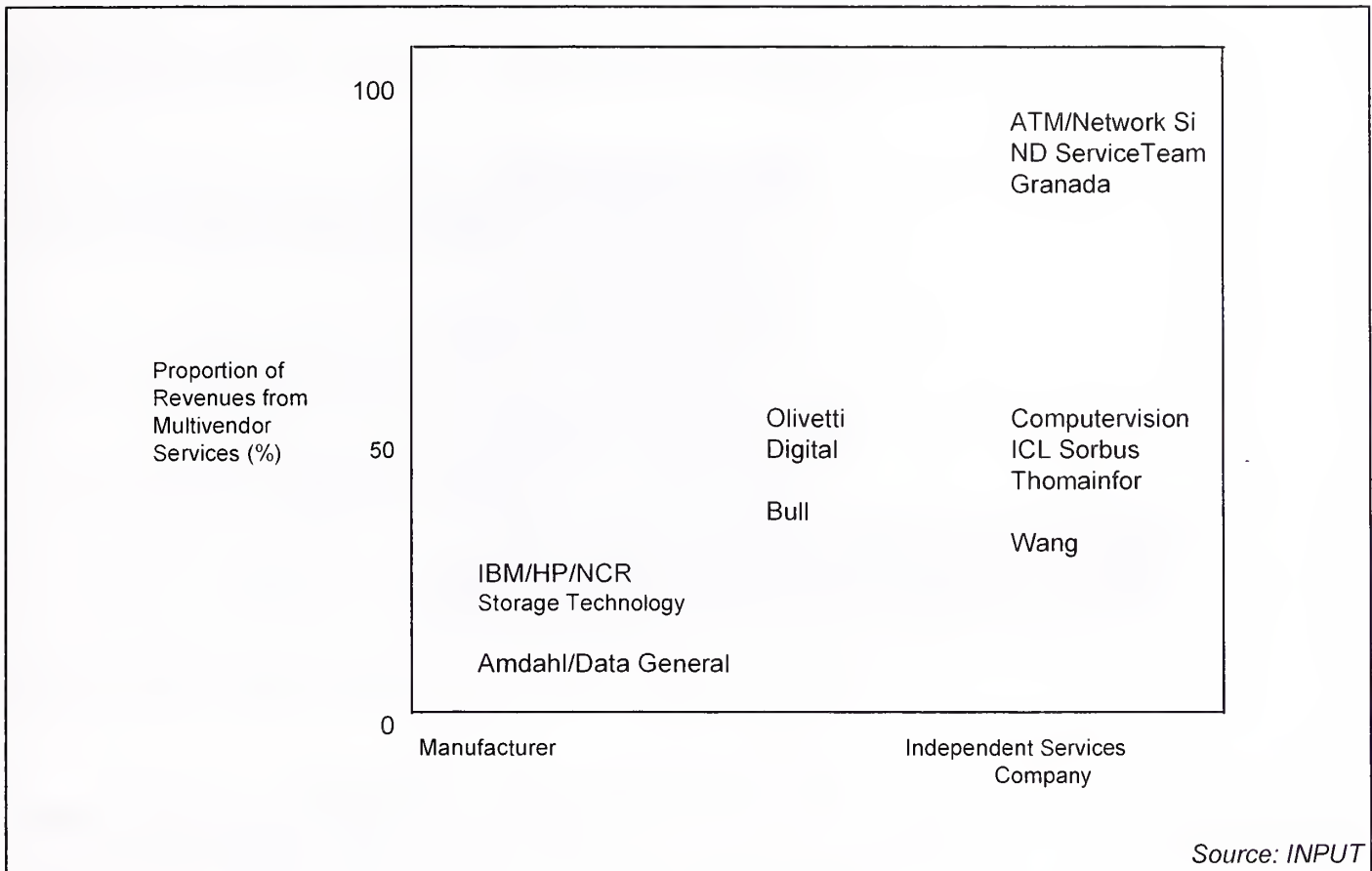
Among other self-definitions provided were:

- P&P described itself as a “multivendor reseller and IT services company”
- Bull stated that “Bull is still a manufacturer, mainly an independent services company, but also a desktop services provider”
- Unisys prefers to describe itself as “a Systems Integrator”.

While companies reposition themselves as independent services companies, the proportion of their revenues generated from multivendor services is increasing. In some cases, part of this may be due to re-allocation of revenues. For example, if a company wins a contract for total site support in open competition, it may allocate all revenues to multivendor services even though a substantial proportion of the contract is for maintenance of its own products.

Not all of those interviewed were willing to divulge the breakdown of their service revenues and, in particular, some were unable to split their revenues into “own products” and “third party products”. However, Exhibit III-5 illustrates INPUT’s interpretation of the positioning of a number of leading multivendor services vendors.

Exhibit III-5

Vendor Positioning, Multivendor Services

Organisations were asked (Question 2a) to identify their reasons for offering multivendor services. This unprompted question generated a variety of answers; some adopted it as a defensive strategy against attack on their base from IMOs; others, such as Wang, no longer manufacture products and are attempting to re-engineer to become independent service providers.

Many of those interviewed stressed the growing demand from customers for multivendor service provision.

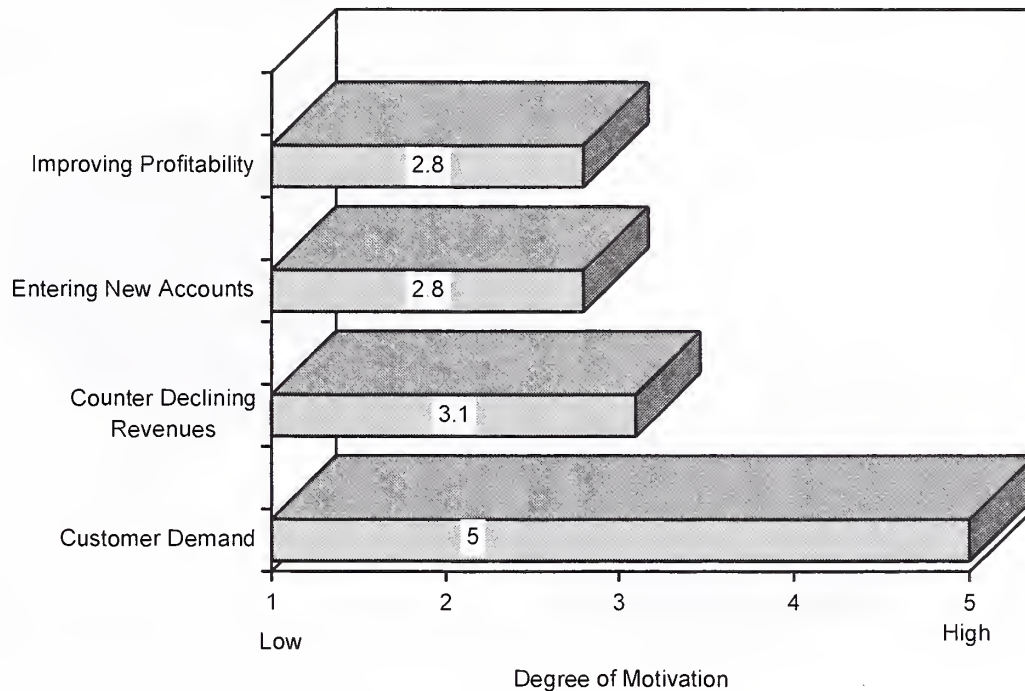
The core business of the independent maintainers is, of course, multivendor service provision; however, there was an interesting variety of reasons given by the non-IMO organisations for offering multivendor services. Explanations given include:

- “Clients’ demands for single source of service” - Comparex
- “CAD customers demand integrated services from top to bottom” - Computervision

- “To provide service management of whatever equipment our customers would like us to provide” - Data General
- “Initially to protect the base. Now as a result of customer pull” - Digital
- “Few customers, if any, have single vendor products, hence a service supplier needs to offer multivendor services to meet customer needs” - HP
- “What customers want. It is a core competence and we have a 10-12 year pedigree as an open systems company” - ICL Sorbus
- “Customer request for one-stop services” - Memorex Telex
- “Initially as a defensive measure to secure the base, but now as a potential growth area” - NCR
- “Customers need support from a single source with a minimum of hassle” - P&P
- “Very much customer driven” - Sequent
- “No customer is purely single-vendor, hence services must be multivendor” - SNI
- “To meet market needs. An essential in the provision of a comprehensive network services offering” - Wang.

Although customer need is the paramount reason for offering multivendor services, Exhibit III-6 shows that a variety of other reasons may be applicable.

Exhibit III-6

Supplier Motivations for Multivendor Services

Sample of 26 Vendors

Source: INPUT

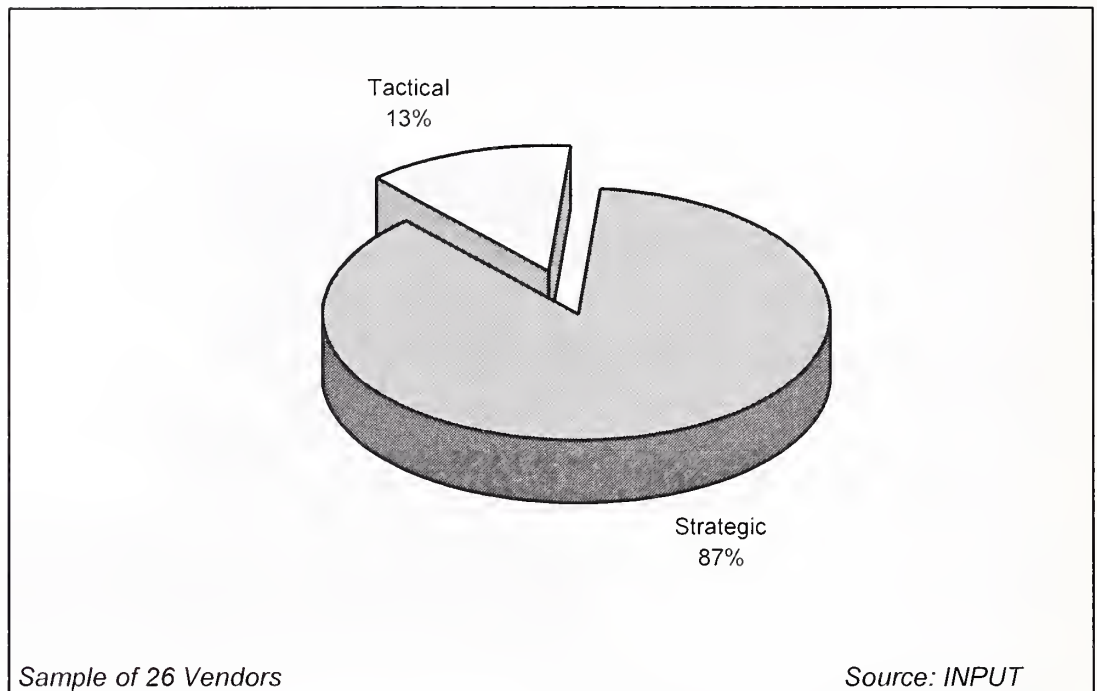
Only Digital and Storage Technology rated “strategic method of entering new accounts” at 5. Other vendors are more likely to target multivendor service to their existing customers rather than addressing new markets.

Of those interviewed, many stressed that offering multivendor services is a strategic direction they have taken, whereas a few view it as a tactical decision which will be taken upon a specific request from a customer. Generally, the companies in this latter category perceive themselves as manufacturers and offer multivendor services only when required to counter specific predatory threats.

None of those interviewed stated that they promote their multivendor capability in terms of the breadth of products supported, although ICL Sorbus indicated this to be a technique in its overall strategy.

Exhibit III-7 shows the proportions of vendors who view multivendor services as either strategic or tactical.

Exhibit III-7

Multivendor Services - Strategic or Tactical?

The evidence from this research suggests that the majority of major manufacturers acknowledge the needs and desires of customers for multivendor service and considers its provision as an appropriate strategy.

C**Vendors Use Partnerships For Geographic Reach**

Many computer manufacturers have a worldwide organisation and this is usually reflected in their service operation. Although certain multivendor services may be more developed in specific countries, most of the manufacturers offer services on a global basis.

In some cases, individual services are not available in all countries, but generally manufacturers' services are provided on an international basis. An exception to this is Bull which sold its North American and Canadian service businesses to Wang in 1995.

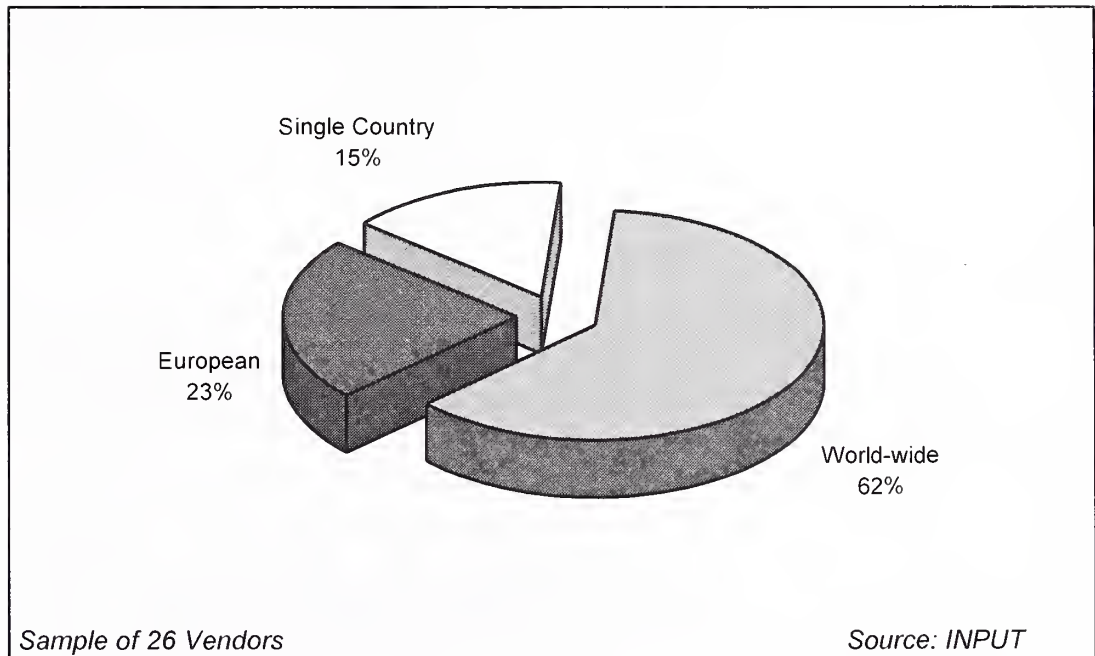
In contrast with traditional manufacturers, the IMOs tend to be more locally based. Even if they have a broad geographical organisation, often their home market provides a substantial part of their revenues. For example, Granada Computer Services, the largest IMO in Europe,

has offices in many European countries and the US, but derives approximately half of its revenues from the UK.

Exhibit III-8 shows the geographical range of those interviewed.

Exhibit III-8

Geographic Presence of Leading Support Vendors



Note that vendor claims of either worldwide or European coverage do not imply a consistent service presence throughout those regions. For example:

- Granada has offices in the US, but has no other offices outside Europe
- ND ServiceTeam operates in the UK, but elsewhere in Europe as Telenor Comma
- Comparex provides services in certain European countries, with others served by sister company, Hitachi Data Systems
- The UK operation of Getronics, Getech, does not offer multivendor service
- Thomainfor has a sizeable presence in France, but does not operate in all European countries.

UK, France and Germany together comprise more than half of the European multivendor services market and it is not surprising that most of the major vendors listed in Exhibit III-2 have operations in each of these countries.

In order to compete with often larger computer manufacturers, and to provide a broader geographical coverage, some of the smaller vendors have formed co-operative agreements or strategic partnerships with other service providers.

Examples of such agreements and partnerships are:

ICG

The International Computer Group (ICG) was founded in 1989 as a joint venture between leading computer service companies in Europe. It now has members in many parts of the world, including the US and Japan.

Group members are independent, but provide a full range of standard and customised product and service offerings which may be offered on a global basis and managed centrally.

Group turnover is stated to exceed £2 Billion, with the UK representative, Computacenter, exceeding £500 Million turnover in 1995.

EUROSERV

Unlike ICG, which generates a considerable proportion of its revenues from product sales, EUROSERV focuses on support issues. Its objectives are:

“To act as an association to promote and develop a market for Pan-European service and support contracts. These contracts will be performed locally throughout Europe by the member or their affiliates for that country.”

Members of Euroserv are IMOs or ISCs whose main source of business is derived from providing computer services and is restricted to only one member for each country. Current members of EUROSERV are shown in Exhibit III-9.

EUROSERV Members

Country	Company
France	TASQ International
Germany	Bitronic GmbH
Italy	Assist Italia Srl
Spain	Metrolico SA
Sweden	Telub AB
Switzerland	Itris Maintenance AG
UK	ATM Technology Management

*Source: INPUT***Computeraid**

As a UK based independent services company, Computeraid has recognised the need to offer services in a wider geographical area and is in the process of setting up partnerships with International Project Associates (IPA).

At the time of printing, it is believed that IPA members have been appointed in Benelux, France, Germany, Scandinavia and Spain.

Getronics

Getronics operates principally in Benelux, but has operations in many European countries and the US. With headquarters in The Netherlands, Getronics is the largest Dutch company in the IT marketplace, having achieved substantial growth organically and through acquisitions.

However, Getronics has formed partnerships with ICL Sorbus and ITS both to broaden its geographical presence and to expand its range of services. Furthermore, a recent alliance with Roccade Informatica Group (with whom they have combined to buy out Raet NV) looks set to help Getronics expand its presence significantly outside its home market.

Thomainfor, ND ServiceTeam and Telenor Comma

Thomainfor is a wholly owned subsidiary of Thomson CSF, part of France's leading electronics group Thomson SA. ND Service Team has its origins as the service operation of the Norwegian minicomputer manufacturer, Norsk Data.

In the late 1980s and early 1990s, Thomainfor acquired many service companies including, in 1991, most of the mainland European operations of Norsk Data (excluding Scandinavia and UK). In turn, the UK operation of Thomainfor was transferred to ND ServiceTeam.

In turn, Bull signed a partnership agreement with Comma (ND's parent), under which it subcontracts hardware maintenance in certain regions to Comma and bids jointly on other projects.

Several changes later, in April 1995, the operations of Comma were sold to Telenor Bedrift, the commercial subsidiary of the state-owned Norwegian PTT.

D

Vertical Market Orientation Not Strongly in Evidence

Many of the leading IT support vendors take their market orientation from the sectors where they have traditionally sold products. Manufacturers first and foremost look to their own product customers as a source of service revenues. In many cases, manufacturers are initially encouraged to offer multivendor services as a result of pressure from a few influential product customers.

Few IMOs segment their marketplace, and hence they consider customers from any industrial sector. However, there are exceptions; for example, Computeraid, with its origins as part of Thorn EMI, has a strong presence in the retail sector.

We asked (Question 7) each support vendor whether they target specific vertical sectors and, if so, which ones. The answers given are shown in Exhibit III-10.

Exhibit III-10

Vertical Markets Targeted by Leading Support Vendors

Sector	Number of Mentions
None	12
Banking & Financial Services	10
Local &/or Central Government	8
Retail	6
Utilities	3
Oil/Gas/Energy	3
Manufacturing	2
Health	2
Legal	2
Telecommunications	1
Transport	1
Imaging (actually an application)	1

Source: INPUT

A sizeable proportion of vendors (almost half of those interviewed) claimed that their services are not targeted at any specific market sector.

In many cases, vendors specified that they target particular customer *characteristics* rather than vertical market segments. For example:

- Manufacturers who offer multivendor services as a tactical response to own product customers. Examples include Comparex, Data General, Sequent and Sun Microsystems
- Companies offering multivendor services as a “total site support” offering and hence focusing on the larger customers, e.g. NCR, ND ServiceTeam and Olivetti
- Granada Computer Services, although claiming not to target specific vertical markets, identified outsourcing companies as suitable targets. Granada is keen to win subcontracted business from large outsourcing contracts, and in return will restrict its service offerings in order not to compete with its outsourcing partners.

E

SoHo Market Poorly Served By Leading Support Vendors

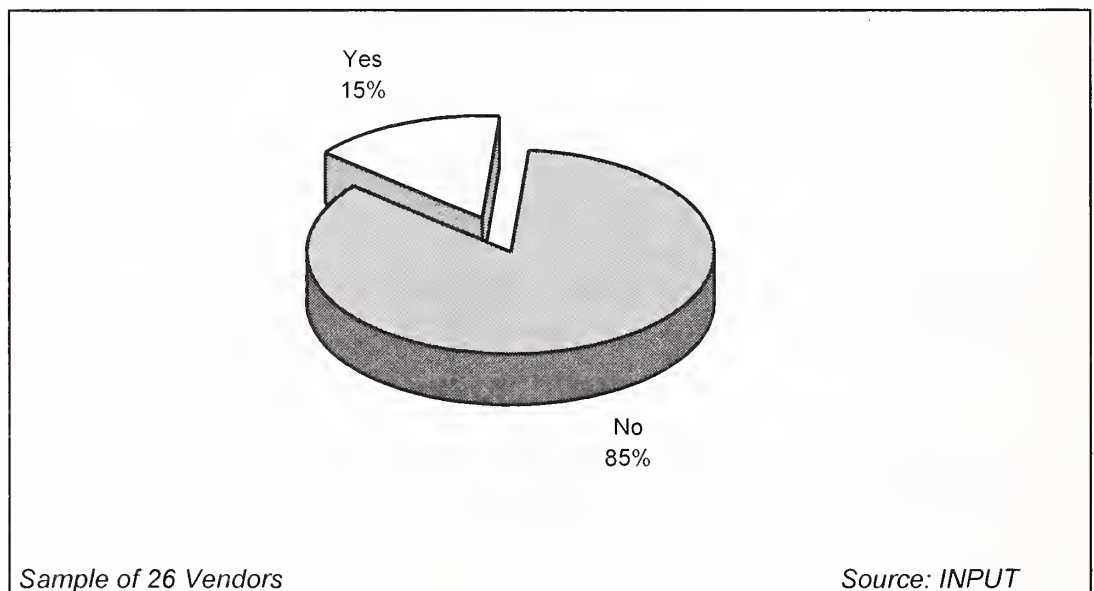
Question 8 asked which companies offer services designed for the Small Office, Home Office (SoHo) marketplace.

Although this is reputed to be the fastest growing area of the market for product supply, it is particularly poorly served by the leading IT *service* suppliers.

Exhibit III-11 indicates a lack of attention given to this type of customer. At present, smaller, localised service providers tend to be meeting the needs of SoHo users more cost-effectively than the larger suppliers who are primarily focused on corporate accounts.

Exhibit III-11

Proportion of Leading Support Vendors Offering SoHo Services



However, there have been some notable entrants into the SoHo market from within the ranks of the leading suppliers, as described below:

Hewlett-Packard has launched its Support Pack offering specifically for the SoHo market. These contracts offer extended warranties, including on-site support for a wide range of desktop products. Initially launched in the UK as Diamond Edge Support, this service is now offered worldwide.

Although not offering a wide range of services, these packs cover a range of products from other manufacturers (e.g. Apple and Compaq) in addition to H-P itself. Service prices appear to be competitive and customers know in advance the total cost for a number of years' support. In addition, these packs are a good example of how services may be sold through distribution channels, a feature which few of the major vendors have addressed.

When **ICL Sorbus** launched *The Edge*, it had great hopes for this imaginative total services concept for the SoHo market. The Edge provides a bundled systems and service solution and incorporates popular business software packages, access to the Internet, Smartcard security and subscription to the Tel-Me business database.

However, in terms of back-up service (200 engineers and 40 consultants on hand to provide a 365 x 24 hour helpdesk, for example), the offer was arguably too ambitious. ICL Sorbus is currently revising its offer, and its experiences in striking the right balance in support of the SoHo market typify the challenge facing leading IT support vendors today.

ICL Sorbus has, however, established a strong foothold in the consumer market in the UK, being the support provider for the high street PC vendor Escom.

Notably, **Digital** used to offer a SoHo style service entitled Backup (for £199 per annum per PC, or £25 per call) to provide hotline telephone support on many software products in this marketplace. However, this was abandoned in favour of a support pack concept similar to that of H-P's.

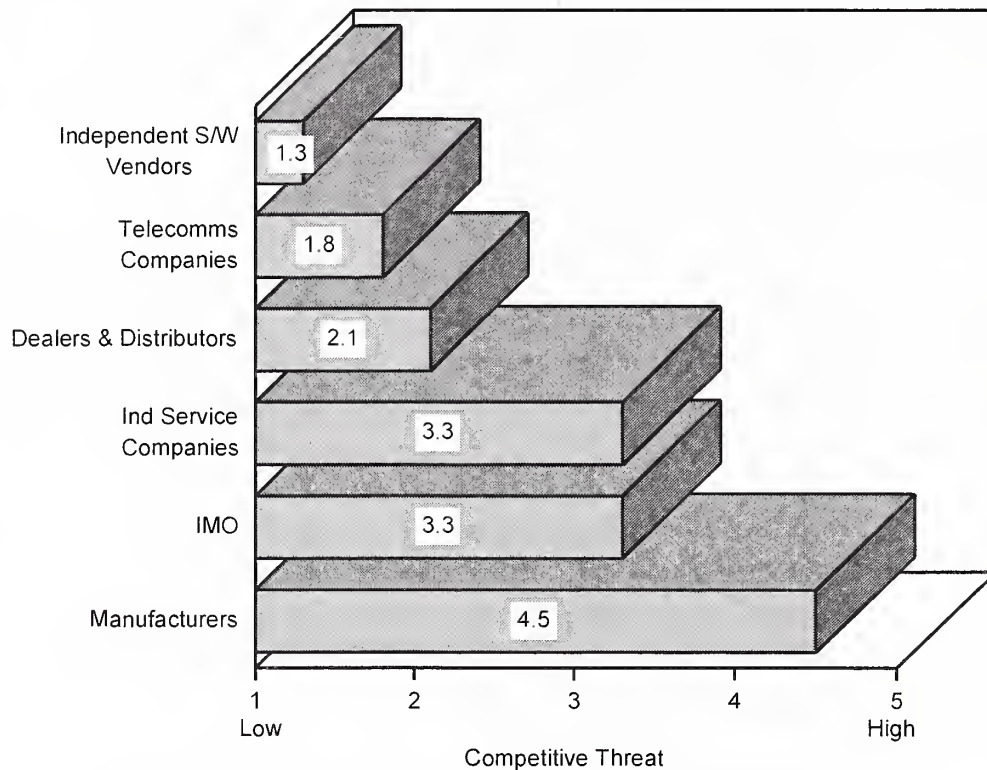
F

Manufacturers Viewed By Most Vendors As Major Competitors

Question 9(a) asked vendors to identify their main competitors. Question 9(b) asked vendors to rate the strength of competition from various types of company.

Exhibit III-12 confirms that the strongest competition for multivendor services is perceived to come from the manufacturers.

Exhibit III-12

Strength of Competition by Vendor Type

Sample of 26 Vendors

Source: INPUT

It is worth noting that although some of the vendors interviewed perceive themselves to be independent service companies, it appears that when considered in competitive terms, they are usually better known by their traditional role as manufacturers. Likewise, some companies are still regarded as IMOs (or TPMs), despite intensive efforts to persuade the market otherwise.

At present the telecommunications companies and the independent software vendors, e.g. Oracle, SAP and Ingres, are not perceived as offering major threats.

Note that some interviewees mentioned companies which are traditional threats in their product market, irrespective of their stance within the services market.

Exhibit III-13 identifies the companies that were identified (unprompted) as threats by those interviewed.

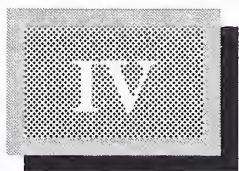
Exhibit III-13

Companies Identified as Major Competitors

Company	Number of Mentions
IBM	13
Digital	11
ICL Sorbus	9
Hewlett-Packard	6
Granada	6
Olivetti	6
Computacenter	4
EDS	4
AT&T/NCR	4
Unisys	3
Hoskyns	2
P&P	2
CSC	2
Others (1 each)	11

Source: INPUT

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Content and Scope of Support Service Portfolios

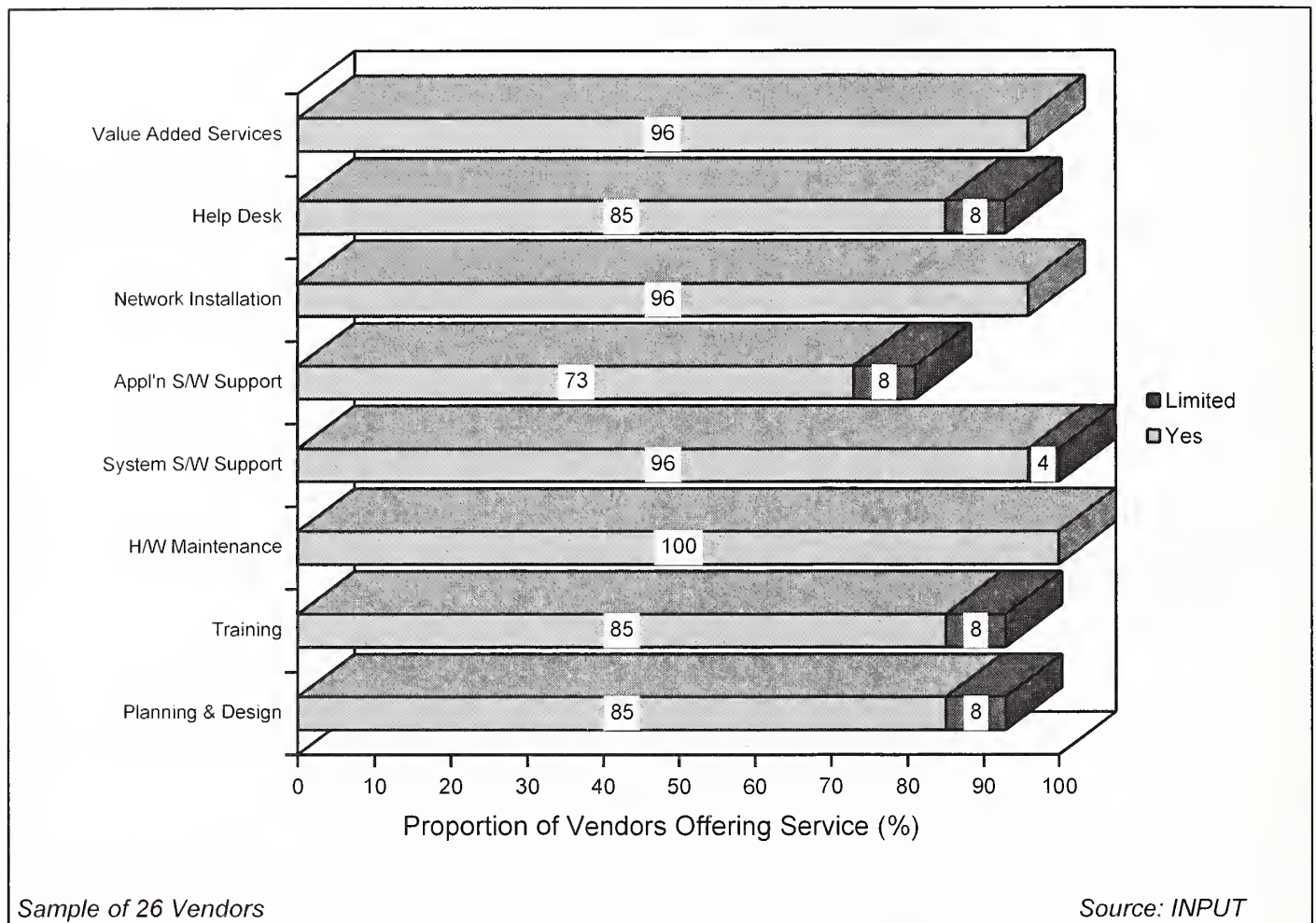
A

Support Service Portfolios Continue to Expand

Most of the leading IT support vendors now offer a comprehensive portfolio of services. These range from planning and design services, through maintenance services and software support, to full managed services in the desktop and LAN environments.

Exhibit IV-1 illustrates the percentage of vendors offering specific services. This does not necessarily imply that the vendor provides the service personally; in some cases, third parties are used extensively to deliver the service.

Exhibit IV-1

Proportion of Vendors Offering Specific Services

Details of the services offered by each of the vendors interviewed are provided in Appendix B.

Traditionally, the computer manufacturers have offered a range of services to their customers; however, equipment maintenance has generated the majority of revenues, with many other services provided free, at little cost, or included in the maintenance charge.

This is no longer the case. Following competition from the independent sector many manufacturers reduced their maintenance prices and, in order to generate new revenues, were forced to charge for some of these additional services.

In addition, during the recent recessionary times in Europe, service revenues became increasingly necessary to ensure the survival of some companies faced with declining product sales.

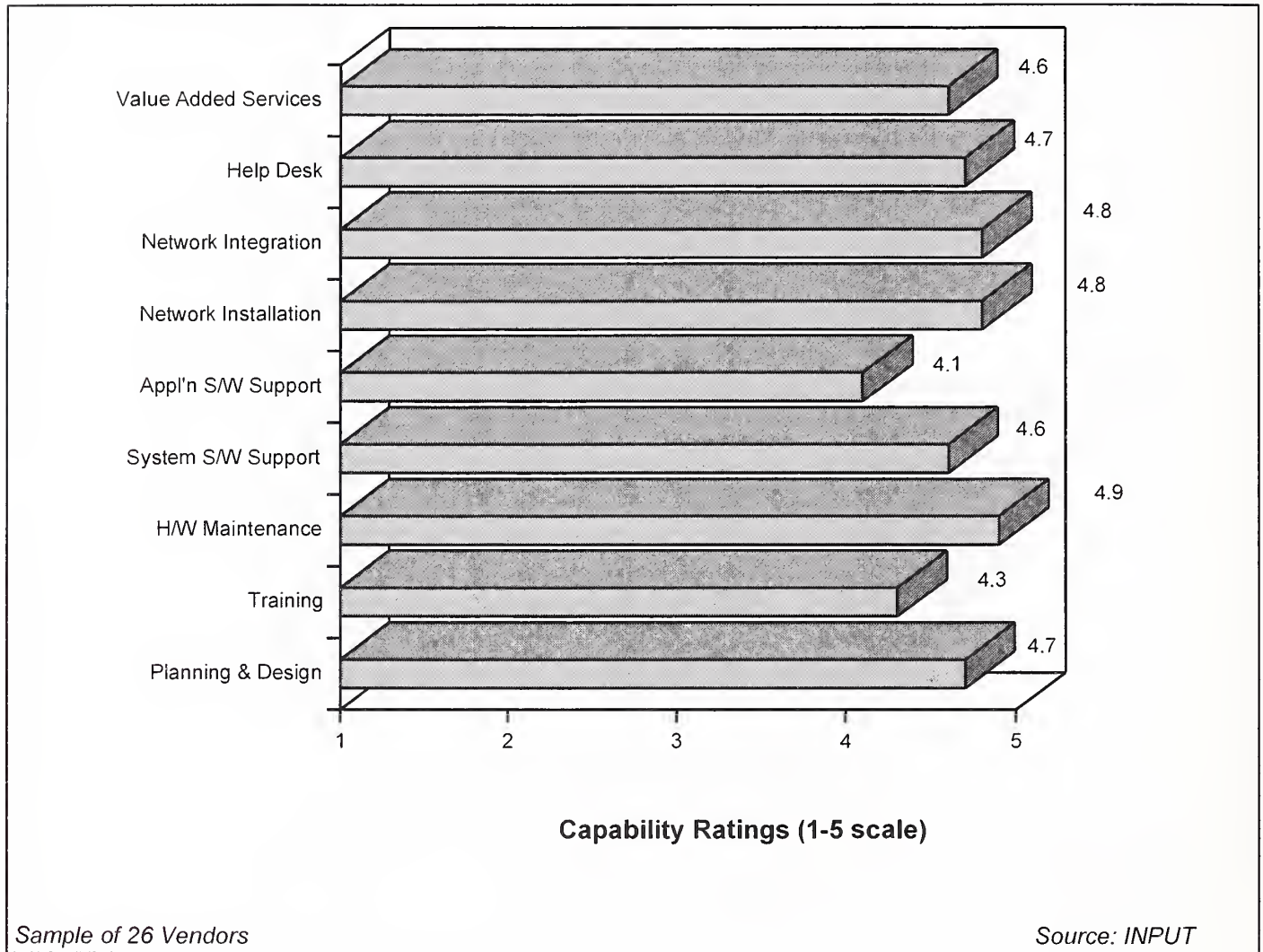
As the pressure to increase revenues was felt, a vast number of services were developed. As shown by Exhibit IV-1, the list of services is comprehensive and most vendors claim a good degree of capability across these services.

Furthermore, the list of support services continues to expand. Vendors mentioned a wide range of other services which they provide in multivendor environments, some of which are variations on those shown in Exhibit IV-1. These include:

- Procurement
- Disaster recovery
- Relocation services
- System management
- Operational managed services
- Media management
- Data storage management
- Consultancy and project management
- Security consultancy
- Anti-virus services
- Cascades, rationalisation and upsizing
- Software distribution
- IT site services
- Various network services including network health checks, network management, voice and data communications consultancy.

We asked vendors to rate their own levels of capability for each of the services shown in Exhibit IV-1 on a scale of 1 to 5, where 1 = low level of capability, 5 = strong service capability. The average figures from the interview sample for each service are shown in Exhibit IV-2.

Exhibit IV-2

Vendors' Service Capability Ratings (Self-Assessed)

Not surprisingly, some vendors were reluctant to award themselves less than 5 in any category. Furthermore, because the ratings shown above reflect the vendors' own perceptions of service capability, the *absolute* values (which are consistently high) are less important than the *relative* ratings between services.

Most of those interviewed are satisfied with their equipment maintenance offerings (rated 4.9), network installation service (rated 4.8), but less satisfied with the level of application software skills (rated 4.1).

In this latter case, fewer vendors currently offer application software support (just over 70%) compared with equipment maintenance (100%) or network installation (over 90%). Clearly, a sizeable proportion of vendors are still in the process of acquiring application

software skills and are not yet fully confident in their ability to provide this critical multivendor service effectively.

While the previous two exhibits may suggest very broad coverage and consistently high service capability across the panel of vendors interviewed, it should be noted that many of the vendors have experience in offering these services on a *limited* range of computer platforms. Fully comprehensive skills across the industry are difficult to achieve.

Methods of addressing this shortage of expertise, including using subcontractors and partners, and by acquiring other companies, are common methods of supplementing in-house skills, and are discussed further in Chapter V.

Note also that, in some cases, different parts of the vendor organisation are concerned with the delivery of specific services (e.g. network installation and integration may be offered by a separate division, as may IT training). Many of the vendors have professional services operations which offer some of these services, while leaving others to be provided by the customer services division.

B

Principal Services Offered by Leading Support Vendors

Each of the services illustrated in Exhibit IV-1 is discussed briefly in the following subsections.

1. System Planning and Design

Many vendors have recognised that this service is an important part of their portfolio and these activities which were previously given free as part of pre-sales activities, may now be fee-earning.

A feature of the portfolios of many vendors is the services lifecycle concept, which usually includes planning and design services at the start of the lifecycle.

Although impartial planning and design advice may be difficult to obtain from suppliers who have their own systems to sell, several such vendors do purport to offer these services on an independent basis. Olivetti, for example, stated:

"If our advice was not impartial and did not meet customer needs we would lose the customer anyway, so we must always recommend the best solution".

Companies that have faced declining demand for their own equipment, including Bull and Unisys, are among those companies with the most advanced offerings in this area. For example, within both its Desktop Services and Network Services portfolios, Bull has a comprehensive subset of planning services.

The traditional, smaller IMO's rarely have the skills to provide this service comprehensively. However, their independence from product sales is an attribute the manufacturers find it difficult to counter.

2. Training

IT Training is often carried out by separate divisions within the vendor organisation and not as part of the customer services division. The size of company usually dictates the number and locations of the training facilities, although on-site training is offered by most of the vendors.

In a few cases, the training operation acts independently of the vendor itself. ICL's Peritas operation, for example, is reputed to be one of the largest IT training organisations in Europe and offers an impressive array of independent courses.

Often, companies with a strong presence in the open systems marketplace offer vendor-independent courses based around leading software environments such as Unix, Oracle and Informix. For example, Hewlett-Packard's "*MultiVendor Unix System Administration*" course covers SunOS, Solaris, IBM AIX, HP-UX, DEC/UNIX and SCO-UNIX. SunService, the service division of Sun Microsystems, also offers a wide variety of leading-edge training courses, some of which specialise in Internet-related business.

Many vendors offer PC application and networking training. In some instances this leads to independent certification as, for example, a Certified Novell Engineer (CNE). Instructors are often certified by Novell and/or Microsoft to provide courses to a specific level.

Partnerships between vendors and software suppliers, e.g. Digital and Microsoft, NCR and Cisco, Network Si and Novell, provide the source of many training courses.

3. Equipment Maintenance

Equipment maintenance has been the lifeblood of IT customer service organisations for years. *Multivendor* maintenance has its origins in the late 1960s. In the UK, the first independent maintainers, CFM and System Reliability were formed in 1968. (CFM is today part of Granada, while System Reliability ceased trading in 1995).

Many of the vendors who opposed the concept of multivendor maintenance vigorously in the early years have faced pressure from their customers and now offer the service. As seen from Exhibit III-7, some view this as a strategic direction, with others seeing it as a tactical response to individual customer requests.

As described in Chapter V, vendors have taken various approaches to developing effective multivendor capability. These range from acquisitions, training and recruitment, through to partnerships and subcontracting.

Where a vendor is (or was formerly) a manufacturer, it often has strengths in specific technologies; for example, Amdahl, Comparex, Memorex Telex and Storage Technology have expertise in mainframe and associated peripheral maintenance, but few skills in the desktop marketplace, and consequently may use subcontractors or partners in this latter area.

Those companies viewing multivendor services as tactical are more likely to use subcontractors to service equipment from other vendors. Two of these, Sequent Computer Systems and Sun Microsystems, although having some customer service staff, use third parties to provide a substantial part of their equipment maintenance.

4. System Software Support

As with planning and design and training, many companies have specialist skills in their own products, but limited skills in truly multivendor software.

A number of IMOs have invested resources in order to offer software support on popular software, e.g. MVS, VMS, UNIX and desktop operating systems, but the general market coverage is still limited.

In most cases, the source code is not available to outsiders and the companies are limited to offering telephone assistance to their customers.

5. Application Software Support

Application software support was identified as the service which fewest vendors provide and, as seen in Exhibit IV-2, the service for which they rate their capabilities the lowest.

Where this service is offered, it is often on PC applications rather than enterprise products. Most of the leading vendors are active to some degree in this area, several offering support for Microsoft and Novell products in particular.

Not surprisingly, Microsoft has done most to encourage independent support of its products, and has accredited numerous vendors at a variety of skill levels, across different geographies. Digital has particularly close marketing and development relationships with Microsoft, and several other vendors including ICL Sorbus and Unisys are preferred support providers. For the launch of Windows '95, Microsoft appointed the following key support partners across Europe: Digital, ICL Sorbus, Unisys, Stream International, PSC, IPA (France) and Helpline (France).

Microsoft BackOffice support was highlighted as a potential area for growth by several vendors interviewed, including Sequent Computer Systems and Siemens Nixdorf.

Few vendors are prominent in the support of enterprise products. Products such as SAP R/3 are now being implemented in large numbers across Europe, and with SAP sales experiencing high double-digit annual growth, significant support opportunities will begin to emerge.

6. Network Installation and Integration

The growth of multivendor services can in part be attributable to the continued trend towards distributed client/server computing. Today's typical computing environment consists of processors, software products and communications equipment sourced from a variety of vendors.

In response, the installation and integration of these disparate parts has become a key service offering of many vendors. These services, along with network management, have been identified as major growth areas by many of the vendors and most offer such services, albeit in some cases by using third parties to carry out the installation of cables.

Workplace Technologies was formed in 1995 as a management buy-out of ICL's structured cabling and network integration division and has been successful in winning several sizeable multivendor contracts recently.

Hewlett-Packard recently launched a suite of services, *Network Integration Service* (NIS), some of which are new; existing services such as HP Cablesure and HP CableSite Service are incorporated within NIS.

7. Helpdesk Services

Most corporates have their own helpdesk operations, and INPUT estimates that most of the expenditure is on internal resources; less than 5% of the total expenditure is on external providers. However, the last two years has seen a surge of interest in using external organisations to implement, staff and run helpdesks.

Many service vendors offer helpdesk services, ranging from consultancy and planning and design services, through technology selection, to staffing and management. It is notable that, while most of the vendors interviewed claim to be active in this market, few have a coherent portfolio describing their capabilities.

ICL Sorbus has been more active in the helpdesk market than most vendors. With access to advanced service management technology, and significant expertise in most helpdesk disciplines, including knowledge engineering, ICL Sorbus can offer a complete range of services from design and implementation to day-to-day operations. For example, ICL Sorbus was able to design and implement a bespoke helpdesk for the high street PC retailer Escom within just three weeks. The helpdesk is currently running at 3,000 calls per day.

Bull is another vendor which has recently begun to focus on the helpdesk market. The *ServiceDesk* concept is promoted as the central component of Bull's Desktop Services portfolio.

At the time of printing, Olivetti was in the process of putting together a substantial helpdesk services offer.

Two of the IMOs interviewed, ATM Technology Management and Computeraid, offer to provide a dedicated helpdesk for individual customers. This customer helpdesk can be at the vendor or customer site.

In a few instances, vendors offer helpdesk services restricted to specific applications; for example, NCR's helpdesk is designed for retail applications only.

IBM has a special service (*HelpWare*) operating 24 hours a day, 365 days of the year, dedicated to users of its own PCs.

8. Other Services

Many of the companies interviewed offer other value-added services, including asset management and configuration support. Other services mentioned, but beyond the scope of this report, are disaster recovery, procurement, security and antivirus consultancy, data storage and media management.

Other services involved with managing products "from cradle to grave" were identified by several of those interviewed. These services which address the entire IT service lifecycle are becoming increasingly common, particularly where the vendor offers to supply any combination of services throughout the IT lifecycle. This approach has been termed variously *rightsourcing*, *selective outsourcing*, *co-sourcing* and *smart-sourcing*.

Other recent service initiatives designed to appeal to the IT manager include those aimed at reducing the cost of IT ownership. Aimed particularly at PC LAN environments, prominent examples are:

- Olivetti's Desktop Services portfolio
- Hewlett-Packard's Client/Server Management Services portfolio
- Digital's PC Utility and Software Utility services.

In addition, services designed to assist the IT manager with software licensing are becoming increasingly common. Microsoft's *Legalware* initiative will stimulate yet more services in this area.

C

Wide Scope of Equipment Supported

Many of the vendors interviewed were unable or unwilling to provide full details of the equipment they support. Some provided indications of their revenues from specific product categories, or advised which are their main revenue earners.

Not unexpectedly, the product orientation of the supplier often determines the service focus of the company; for example, the strength of Amdahl in mainframe support (90% of revenues). Note also that some vendors have sizeable proportions of their revenues attributable to retail equipment (e.g. ICL Sorbus) or Automated Teller Machine (ATM) support (e.g. NCR).

Exhibit IV-3 illustrates those companies deriving a substantial proportion (50% or more) of their service revenues from one product category. Exhibit IV-4 shows the converse, i.e. those vendors with a more balanced portfolio.

Exhibit IV-3

**Vendors With A High Dependence On One
Product Category**

Company	Category	Proportion of Revenues (%)
Amdahl	Mainframes & associated peripherals	90%
ATM	PCs	50%
Comparex	Mainframes & associated peripherals	90%
Data General	Midrange systems	50%
Network Si	PCs	50%
Sequent	UNIX systems	60%
Storage Technology	Mainframes & associated peripherals	70%
Sun Microsystems	UNIX systems	60%

Source: INPUT

Exhibit IV-4

Vendors With More Balanced Equipment Service Portfolios

Vendor	Proportion of Revenues (%)				
	Mainframe	Midrange	UNIX	PCs	Networks
ICL Sorbus *	25%	20%		10%	33%
Thomainfor	10%	20%	20%	20%	10%
Wang		45%	20%	15%	25%

* Plus 12% for retail equipment.

Source: INPUT

Some vendors stated that they provide service across a wide variety of hardware platforms and are unable to split their revenues by category.

Although many IMO's have attempted to add new services to their portfolio and expand their maintenance activities to cover a greater range of equipment (e.g. Unix and NT Servers and proprietary mid-range equipment), PC maintenance still generates a substantial part of their service revenues (see examples for ATM Technology Management and Network Si in Exhibit IV-3.)

D**Interest in Network Support Services Growing**

As with operating system support, it is the product orientation of the vendor that usually determines the support offered on networks.

Novell's Netware is widely acknowledged to be the market leading network operating system (NOS) and many of those interviewed offered varying levels of support for Netware. Other products including Pathworks, Lan Manager and Banyan Vines were mentioned by a minority of those interviewed.

Hardware networking products, e.g. bridges, routers and switches, are supported by a sizeable proportion of the leading vendors. Many of the communications hardware vendors do not have a support operation of their own and rely on third parties to provide support for their products. It is possibly too early to surmise whether the

emergence of a few larger communications companies, e.g. Bay Networks and 3Com, as a result of mergers and acquisitions, will have a major impact on multivendor support.

Many of the leading computer vendors sell communication products from other suppliers and offer warranty and ongoing support on these products.

As described in section G, supplier accreditation is an important attribute in being able to offer support on third party operating systems, application software and communication products. It is very difficult for vendors to support third party software products without some form of back-up, accreditation or assistance from the original supplier.

Several vendors are currently promoting their network services capability aggressively, and are actively seeking new acquisitions. Both Bull and Wang are currently looking to acquire networking companies across Europe. In October 1995, Wang's acquisition of BISS Limited in the UK provides it with substantial expertise in the network integration marketplace.

Others with sizeable revenues in the networking services marketplace include traditional manufacturers such as NCR and SNI, and those selling network solutions such as Getronics and P&P.

Remote network monitoring and management are highlighted as important areas for future development and various offerings in this area are reviewed later in section H.

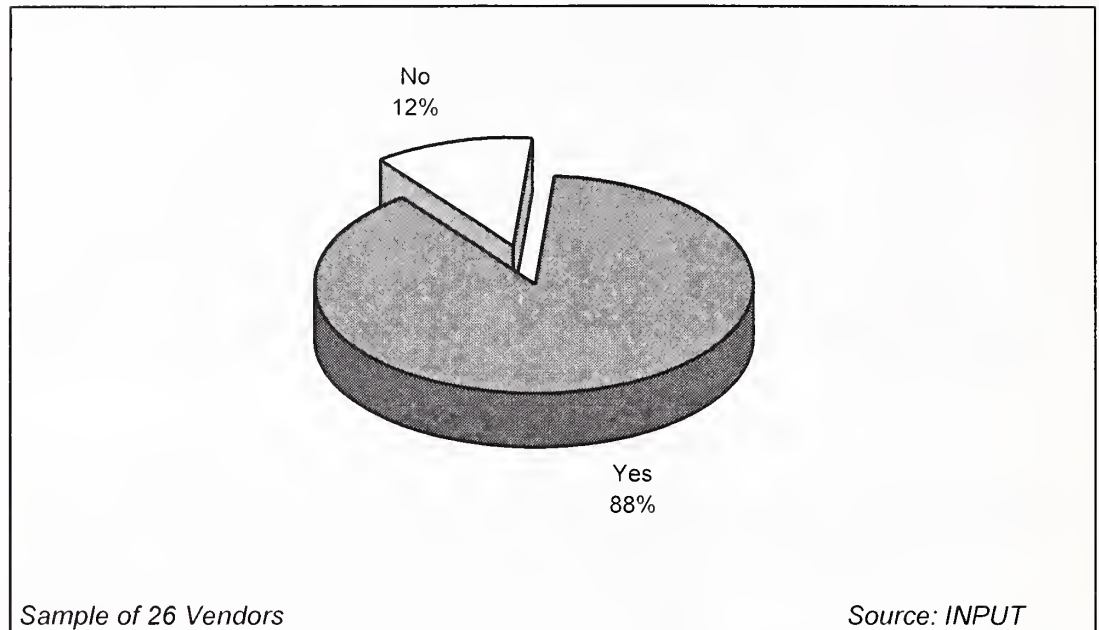
E

Attention Focusing on Desktop Services

Most of the leading IT support vendors have a desktop services portfolio (See Exhibit IV-5), although few have branded their offering as such.

Exhibit IV-5

Proportion of Vendors With Desktop Services Portfolio



Among those companies with a clear branded offering in this area is Bull, whose range of services within its Desktop Services portfolio are denoted DESKplan, DESKstart, DESKcare and DESKmanage.

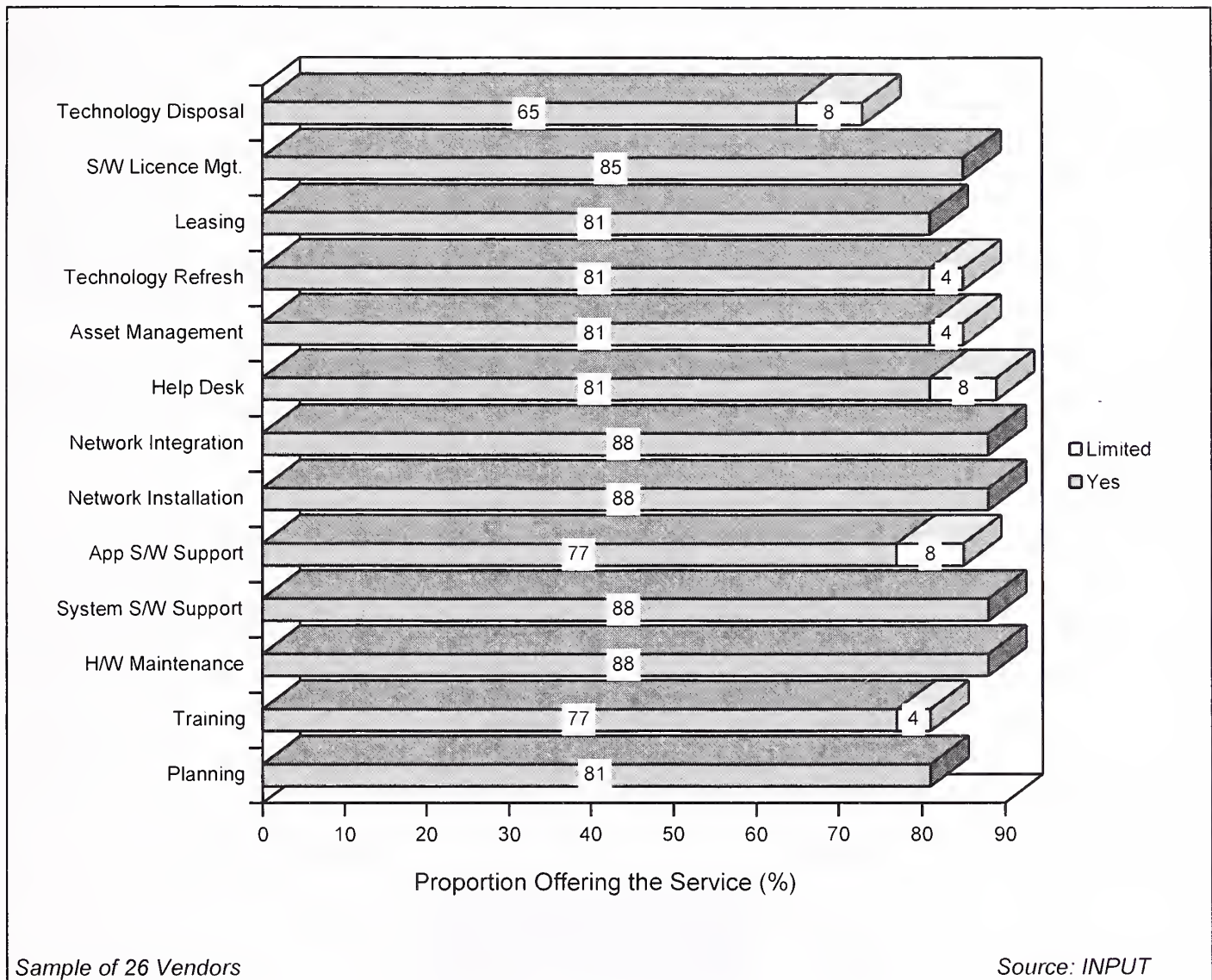
Olivetti is another vendor with a strong desktop services branding. Under the Desktop FM banner, the range of services includes AssessIT, ValueIT, ProcureIT and FinanceIT.

Hewlett-Packard's Client/Server Management Services portfolio reflects recent research into the costs of distributed computing, as do comparable offerings from Digital and Olivetti. Such services are designed to assist the customer make the most effective and cost-efficient use of client/server and desktop technology.

Many other vendors incorporate desktop services within their normal portfolio. For example, Thomainfor stated that it does not have a desktop portfolio, but then admitted to providing several services aimed at this type of operation.

Exhibit IV-6 illustrates the range of desktop services provided by those interviewed.

Exhibit IV-6

Proportion of Vendors Offering Specific Desktop Services

As can be seen from Exhibit IV-6, a substantial number of the services are offered by most vendors, although this does not indicate which services are provided directly by the vendor and those for which subcontractors are used.

In addition, some of the services, e.g. leasing and training, may be provided by other divisions far removed from the normal customer service divisions.

Note that details of the desktop service offerings of the vendors interviewed are given in Appendix B.

F

Warranty Market Provides Key Source of Support Business

The vendors interviewed were asked (Question 14) to provide details of those companies for whom they provide warranty support.

Responses require careful interpretation, since some vendors are only authorised to carry out warranty service on third party equipment for their *own* customers. In fewer cases, the vendor has been appointed by the manufacturer as warranty provider for *all* customers of the equipment in question.

However, with justification, some companies claim to be the warranty provider for leading PC or communications equipment manufacturers. Examples are listed in Exhibit IV-7.

Exhibit IV-7

Warranty Providers - Typical Examples

Warranty Provider	On Behalf Of
Amdahl	Sun, Cray systems, Data General Clarion disks
ATM	NEC
Computeraid	AST, Opus
Digital	Compaq (worldwide), Dell, Wang
Getronics	Tulip, UB, Newbridge
IBM	Toshiba
ICL Sorbus	Escom, Gateway, Compaq, Sequent, Pyramid
NCR	Cisco
Network Si	SNI, Compaq
Thomainfor	AST, Canon
Wang	Dell

Source: INPUT

Not unexpectedly, most warranty work carried out by these vendors is on their own equipment and for those companies such as Compaq, Dell, Gateway, NEC, Opus and Toshiba that do not have their own

service operation. A large number of communications equipment manufacturers is included in this latter category.

Traditionally warranty work has been the forte of the IMOs, but the success of Digital, ICL Sorbus and H-P in particular in winning contracts from major competitors in the PC market may indicate that changes are taking place in the attitudes of the companies involved.

G

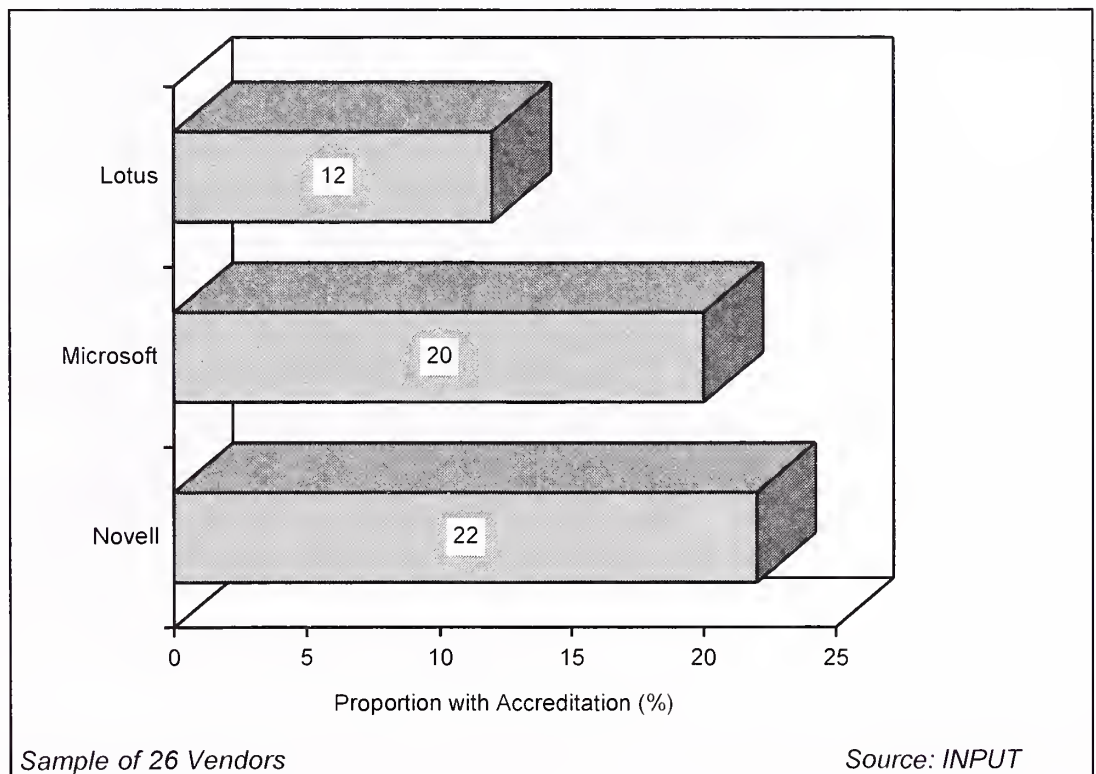
Accreditations Key to Desktop Support

Warranty accreditations, as discussed in the previous section, are an important feature of the activities of leading IT support vendors, but arguably a more important accreditation is that provided by the leading software companies.

In this context, we asked vendors if they were accredited support providers for Microsoft, Novell and Lotus. Not surprisingly, those which are predominantly desktop services providers, rather than mainframe vendors, claimed most of the accreditations. Exhibit IV-8 shows the number of such companies.

Exhibit IV-8

Proportion of Accredited Software Support Providers



When asked to list other software accreditations, a further 11 companies were identified, namely 3Com, IBM, Bay Networks, SAP, Cisco, Chipcom, SunSoft, SCO, Oracle Training, Banyan and Borland.

H

Remote Services Increasingly Important

As discussed in section D, remote network monitoring and management have become important issues in support services provision. The major drivers for this appear to be:

- The need to monitor proactively the performance of customers' systems to ensure potential problems are identified and, if possible, prevented
- Minimising system downtime in the event of a fault. This is particularly relevant where more business-critical applications are running
- To minimise the number of site visits required, which may be costly both in terms of downtime and engineer charge rates.

Traditionally, many of the mainframe vendors have had software which can be run remotely and in some cases allow for the systems to "phone home" with news of impending problems, including system errors and adverse environmental conditions. Often diagnostics can be run and sometimes faults fixed from the remote site and, in some cases, the remote operation may be in a different country (or continent) from the customer system.

However, more recent developments have been made to offer a similar service in the distributed computing arena. The growth of PC networks has meant that more mission critical applications now run on PC platforms, and remote services have had to adapt accordingly.

The number of vendors offering remote support, and the services offered by this method, have increased dramatically in recent years. Exhibits IV-9 and IV-10, show the number of vendors offering remote services and the types of services provided by this method.

Exhibit IV-9

Proportion of Vendors Offering Remote Support

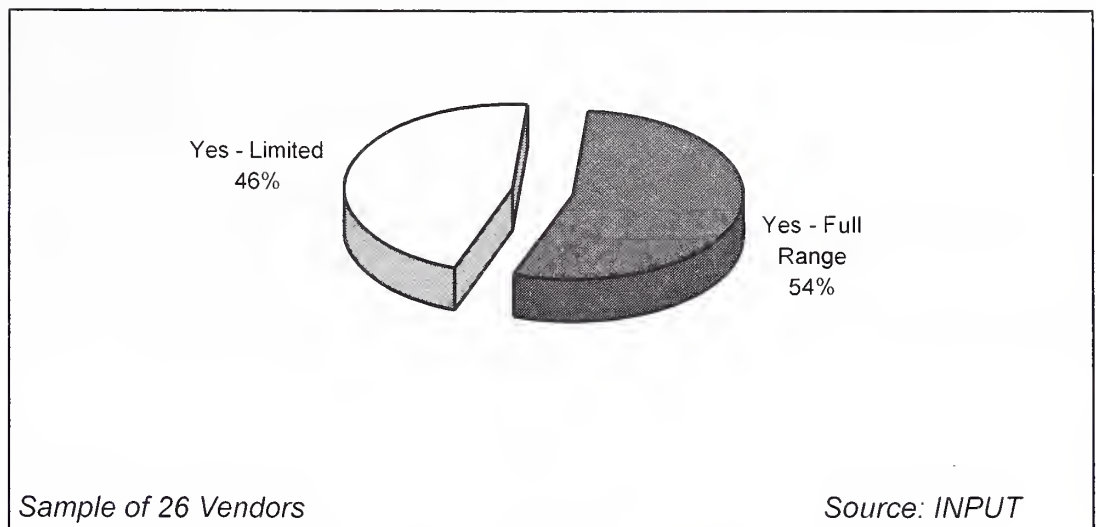
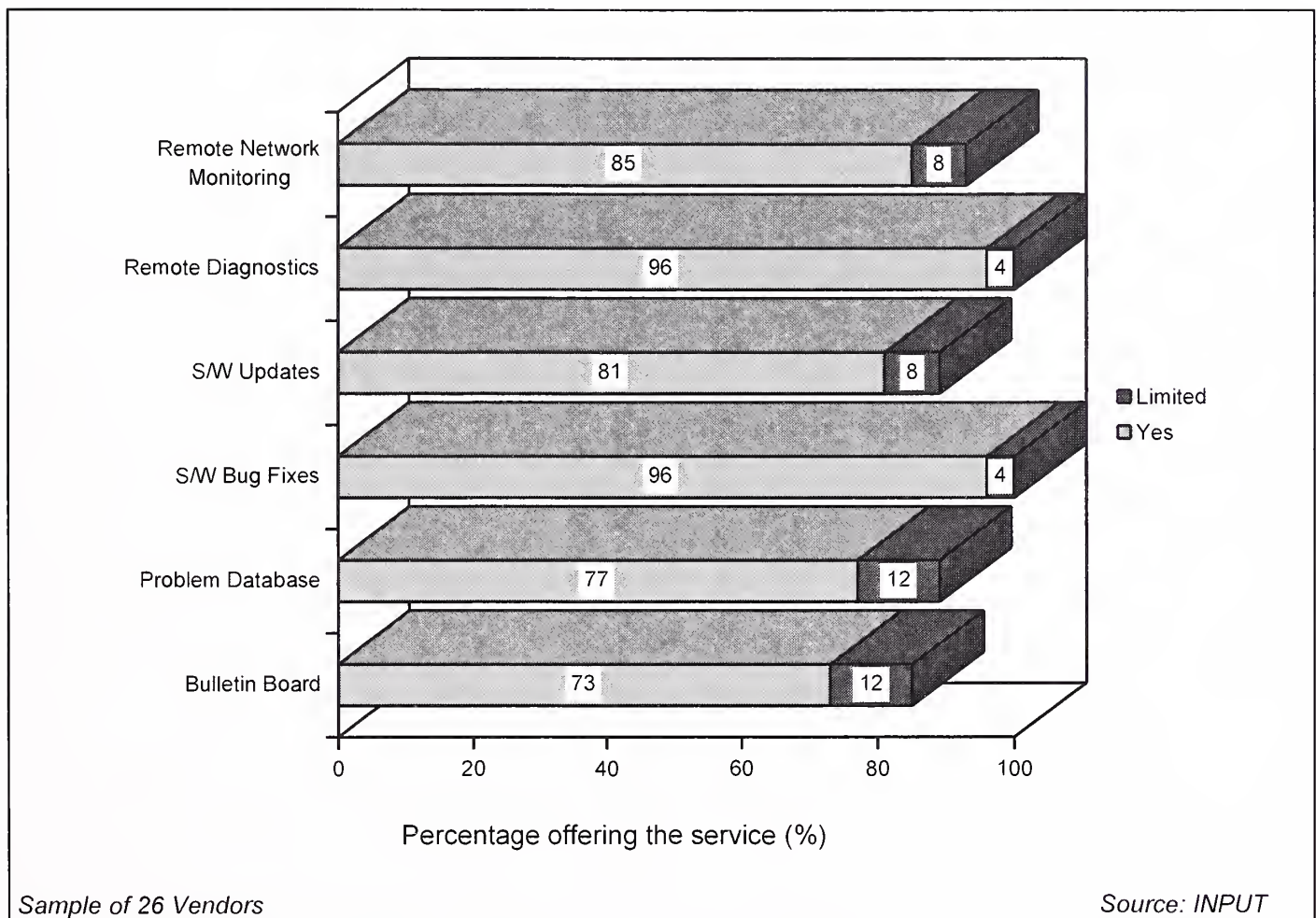
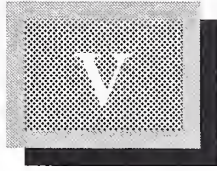


Exhibit IV-10

Proportion of Vendors Offering Specific Remote Services



A substantial number of those offering remote network monitoring stated that their services also includes remote network management. A few vendors are prominent in this market, having invested substantially in remote service capability in recent years. Examples are H-P, Digital and Olivetti, plus leading outsourcing suppliers including SHL Systemhouse, Hoskyns and CSC.



Service Delivery Mechanisms of Leading IT Support Vendors

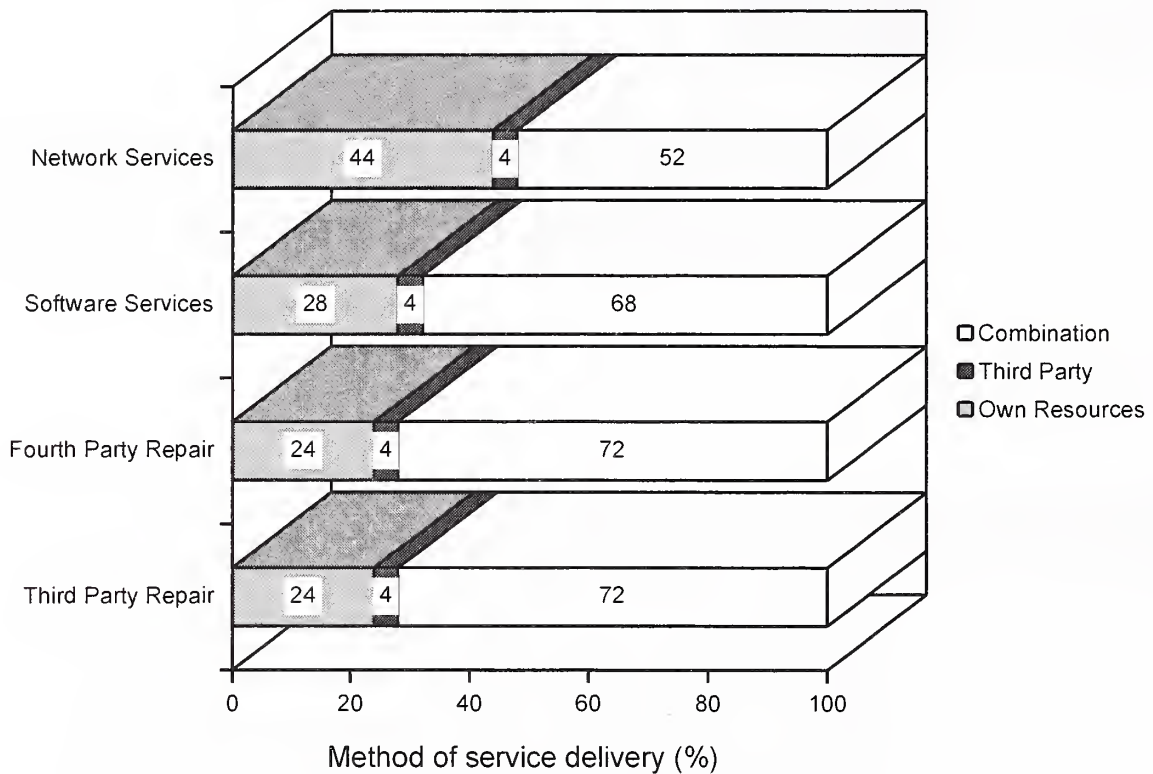
A

Vendors Rely on Third Parties For Broad Service Coverage

In order to deliver a comprehensive range of services across a wide range of platforms, many of the major vendors use other service companies to provide some essential functions. Exhibit V-1 shows the proportions of leading vendors using own or third party resource to carry out the following functions:

- Third party repair
- Fourth party repair
- Software services
- Network services.

Exhibit V-1

Proportion of Vendors Using Third Parties For Key Services

Sample of 26 Vendors

Source: INPUT

As can be clearly seen from the exhibit, many companies use third parties to supplement their own service provision. Only in the area of networking services are vendors as likely to use solely internal resources as they are third party (or a combination) of resources.

It is evident that few companies have the experience and expertise to offer a full portfolio of services entirely from their own resources. Only three vendors claimed to provide all four of these services entirely on their own.

Few vendors were willing to provide details of the third parties used, preferring this to remain confidential. Where details were provided, no one company was seen to be dominant.

B

Signs of Increased Partnership and Acquisition Activity

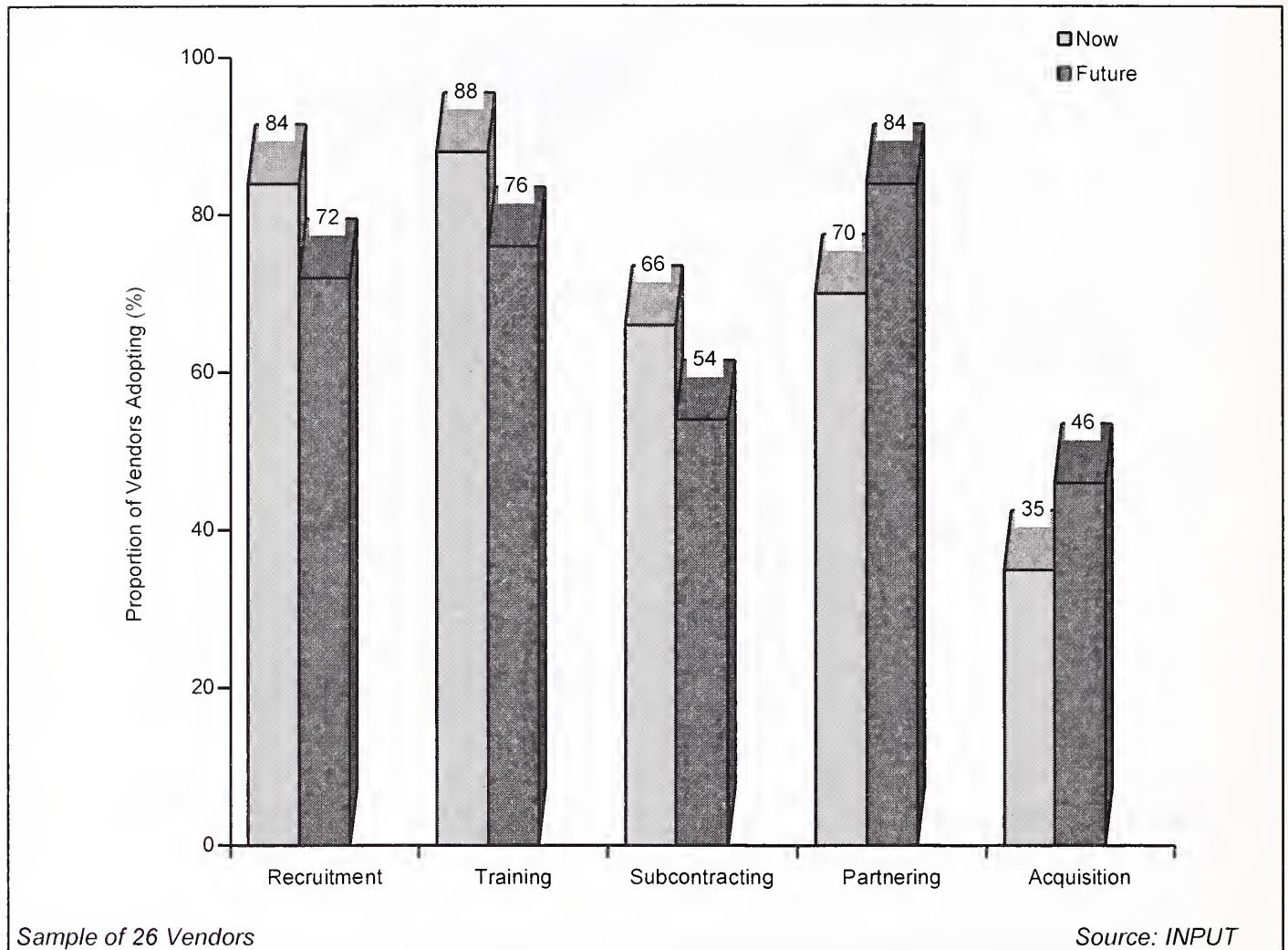
As identified in Exhibit V-1, the majority of the leading vendors use a combination of internal and external resources to deliver services.

We asked (Question 18) which of the following methods are used for resourcing multivendor service activities and whether this was likely to change in the future:

- Recruitment
- Training
- Subcontracting
- Partnering
- Acquisition.

Although some vendors, understandably, were reticent on future acquisition plans, others (e.g. Bull and Wang) identified this as a key feature of their future strategy. The intentions of those interviewed are shown in Exhibit V-2.

Exhibit V-2

How Vendors Resource Multivendor Services

Although internal methods (i.e. recruitment and training) are the preferred methods of resourcing, the use of other parties to assist in these services is evident.

A change in emphasis from subcontracting to partnering is also in evidence, as are the possibilities of increased acquisition activity.

For this question, subcontracting is defined to be where a company is chosen to perform a particular task (e.g. maintain a specific range of equipment) and is usually contracted on an individual basis. This is often a tactical decision.

It was clear that some vendors, such as Sequent Computer Systems, use third parties for equipment maintenance services as a more strategic decision, in which case the relationship is considered to be partnering.

Another common example of partnering is where two or more companies combine forces to provide services to one particularly large customer, or to cover complementary geographical areas.

C

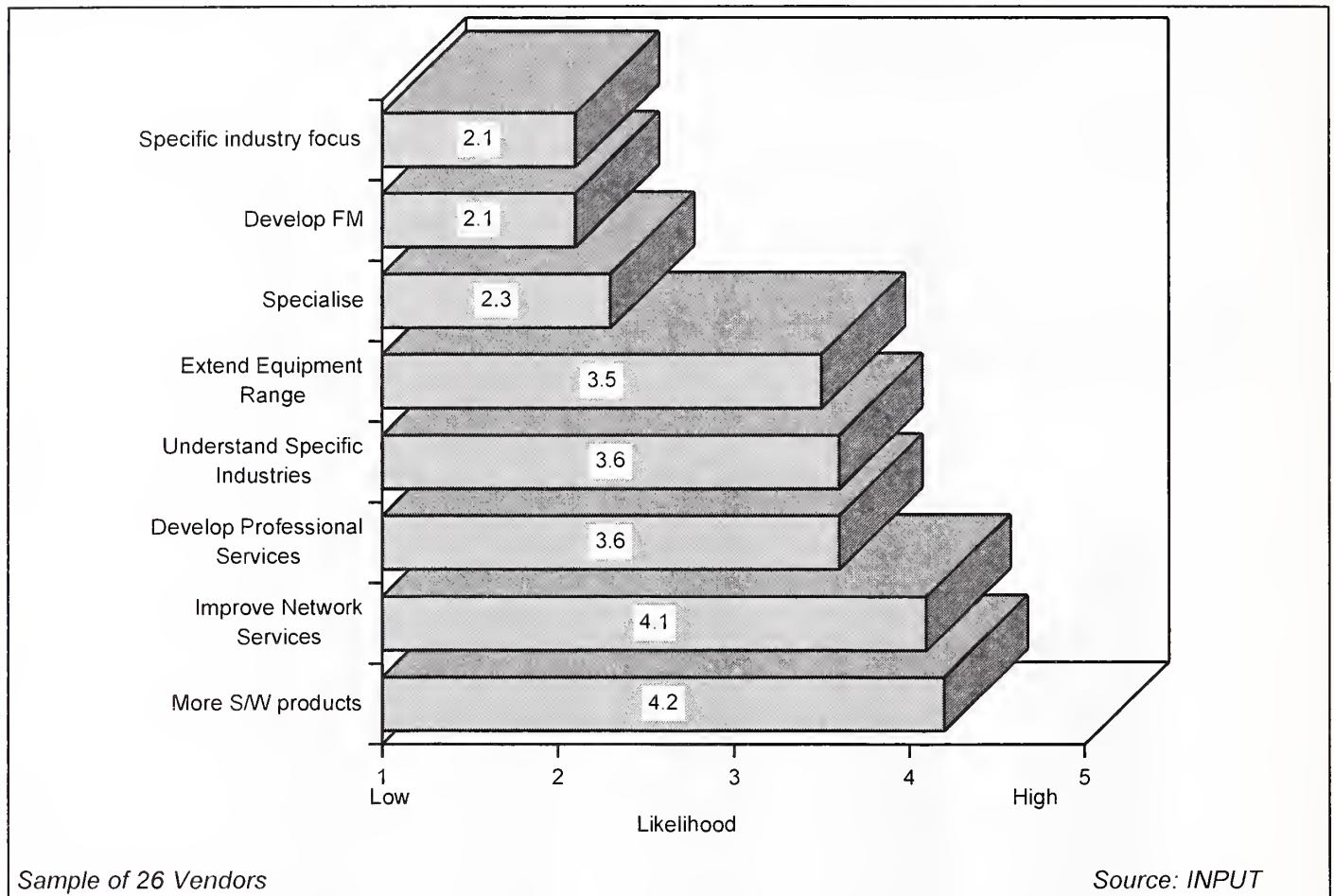
Future Developments

Vendors were asked (Questions 23 and 24) what plans they have to develop their multivendor service capabilities. As seen from Exhibit V-2, more use of partners and additional acquisitions are possible strategic directions.

Question 24 asked vendors to rate the likelihood of developing their support activities in specific directions in the near future (on a scale of 1 to 5 where 1 = Not at all likely, 5 = Very likely).

Exhibit V-3 shows the extent to which the vendors interviewed intend to develop their business in certain directions.

Exhibit V-3

Likelihood of Vendors Adopting Specific Service Directions

As can be seen, supporting additional software products and improving network service capability are identified as likely developments for most vendors.

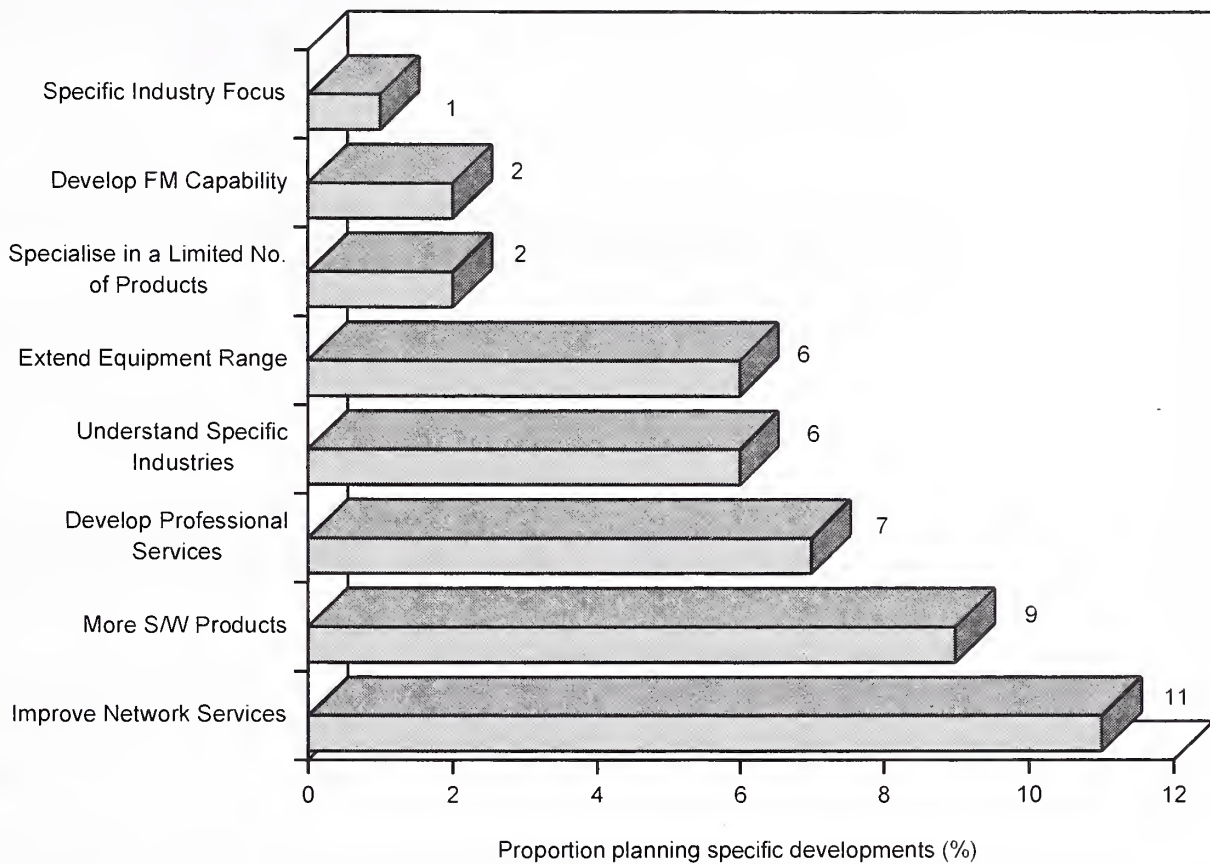
Views on professional service developments, extending the equipment range and improving the understanding of specific industries are more neutral. Specialisation, developing FM capabilities and adopting a specific industry focus are the least likely developments.

In evaluating the answers to this question, it should be remembered that several vendors already have adequate skills in certain areas, and do not intend to invest further in those areas.

Exhibit V-4 shows the proportions of vendors who are definitely intending to develop their support business in certain directions (i.e. where vendors rated the likelihood of developing specific activities as 5, i.e. Very likely).

Exhibit V-4

Proportion of Vendors Definitely Planning Specific Service Developments



Sample of 26 Vendors

Source: INPUT

Finally, it is interesting to note some of the comments offered by vendors in terms of future intentions for their support business. Comments included:

“To maintain more equipment from more suppliers directly” - Amdahl

“To carry out more consultancy and project management activities” - ATM

“To extend desktop services, network and asset management activities” - Bull

“To expand in Eastern Europe” - Comparex

“To improve Novell and Sun skills” - Computervision

“To improve desktop services” - Data General

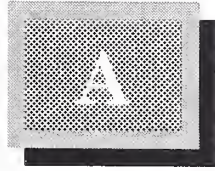
“To extend network management and consultative services” - Olivetti

“To expand the network support capabilities and provide more project management, consultancy and management services consultancy” - Storage Technology

“To extend partnerships” - Sun Microsystems

“Security is an issue in the multivendor marketplace and must be addressed” - Unisys

“Invest in skills and develop enhanced service offerings” - Wang



Vendor Questionnaire

A

Competitive Positioning

1. Which of the following best describes your organisation? *Please tick.*

Equipment manufacturer

Independent maintenance organisation (IMO)

Independent services company

Other (Please specify

2. a) What are your reasons for offering multivendor services?

b) What (if any) **branding** have you adopted for your multivendor services portfolio?

3. How closely do the following statements match your motivations for offering multivendor services? *Please rate on a scale of 1 to 5, where 1 = not relevant, 5 = highly relevant*

Demand from customer base

Counter decline in traditional maintenance revenues

Strategic method of entering new accounts

Way of improving profitability

It is the nature of your business (e.g. if you are an IMO)

Other (*Please specify*)

4. Which of the following statements most closely matches your approach to multivendor services? *Please tick*

You offer multivendor service as a tactical response to demand from existing clients

You promote your multivendor capability in terms of the breadth of products you support

You promote your multivendor capability as part of a strategic/total service solution

5. Which of the following multivendor services do you offer and which do you place most emphasis on /consider a core competence? (*please rate your strength in each area on a 1 to 5 scale, where 1 = low level of capability, 5 = strong service capability*)

Systems planning and design	_____
IT Training	_____
Equipment maintenance	_____
System software support	_____
Application software support	_____
Network installation	_____
Network integration	_____
Value-added services (e.g. asset management, configuration support, etc.)	_____
Help desk service	_____
Other (Please specify)	_____

6. What is the geographic scope of your multivendor service capability? (*please tick*)

National	_____
European	_____
Worldwide	_____

If national, which country (-ies)?

7. Do you target specific vertical markets? Y/N _____

If yes, which?

<i>Industry</i>	<i>Examples of clients</i>

8. Do you target the small office/home office (SOHO) market? Y/N _____

If yes, please explain the key features of your service offer:

9. a) Who do you consider to be your major competitors?

b) Score the following in terms of competitive threat (1 to 5 scale, where 1 = not a serious competitor, 5 = biggest competitor)

Equipment manufacturers _____

Independent maintenance organisations _____

Independent services company

(e.g. professional services or outsourcing vendors)

Telecommunications companies

Dealers/distributors

Independent software vendors (ISVs)

Other (*please specify*)

B

Content and Scope of Offer

10. Please indicate the proportions of the following equipment types you support (in terms of percentage of revenues earned):

Note to interviewer: If respondent cannot give precise % splits, please give some indication of the main areas of focus (e.g. 1, 2, 3 against the main types supported).

Mainframe

Midrange (e.g. AS/400)

UNIX/NT servers

Network equipment

PCs

Peripherals

Other

11. *Equipment vendors only:* For each of the following equipment types, please indicate the proportions of your revenues derived from support of your own products and from support of third-party products:

	Own Product (%)	Third-Party (%)
Mainframe		
Midrange (e.g. AS/400)		
UNIX/NT servers		
Network equipment		
PCs		
Peripherals		
Other		

For all respondents: Please list the principal product lines you support in each of the categories below. State make & models of equipment (e.g. DEC Vax, IBM AS/400, etc.) and of software (e.g. Sun Solaris, HP-UX, Microsoft Windows 95...):

Equipment

Mainframe	
Midrange (e.g. AS/400)	
UNIX/NT servers	
Network equipment	
PCs	
Peripherals	
Other	

Software

	Mainframe	Midrange	Open Server	PC
Operating systems				
PC/server applications				
Utilities (e.g. DBMS)				

12. Do you have a specific *desktop services* portfolio? Y/N _____

If yes, please explain the key features of your *desktop services* offer (including any specific **branding** adopted):

13. Which of the following *desktop services* do you offer:

Planning	_____
Training	_____
Equipment maintenance	_____
System software support	_____
Application software support	_____
Network installation	_____
Network integration	_____
Help desk service	_____
Asset management	_____
Technology refresh option	_____
Leasing/off-balance sheet arrangements	_____

Software licence management _____

Technology disposal _____

14. Are you a warranty provider for one or more equipment manufacturers? If so, which ones?

15. Are you an accredited support provider for any of the following software companies? (*Tick as appropriate*)

Microsoft _____

Novell _____

Lotus _____

Other (please specify) _____

16. Do you have a remote service capability? Y/N _____

If yes, which of the following do you provide:

Bulletin board _____

Problem database _____

Software bug fixes _____

Software updates _____

Remote diagnostics _____

Remote network monitoring _____

Other (*Please specify*) _____

C

Organisation and Resources

17. Do you employ your own service employees, use a third party, or a combination of resources? How does this vary for different services (equipment services, software services, network services?)

	Own	3rd Party	Comb.	Names of 3rd Parties Used
a) 3rd Party Repair				
b) 4th Party Repair				
c) Software services				
d) Network services				
e) Other				

18. How are you resourcing or planning to resource your multivendor service activities? (*Tick one or more*)

	Now	In future
From within by recruitment	_____	_____
From within by training	_____	_____
Through subcontracting	_____	_____
Through partnering	_____	_____
Through acquisition	_____	_____
Other (<i>Please specify</i>)	_____	_____

19. What organisational structure have you adopted for multivendor services?

Multivendor services is a separate unit _____

Multivendor services are marketed and delivered through the customer services organisation _____

Multivendor services are marketed separately but delivered through the customer services organisation _____

Other (please specify) _____

D

Business Development

20. How is your multivendor services business growing?

- a) What proportion of your total customer services turnover comes from multivendor services?

_____ %

- b) What growth did your multivendor service business achieve in 1994/5 (or last fiscal year)?

_____ %

- c) What growth do you anticipate for your multivendor service business in the period 1995 to 1997?

_____ % per annum

- d) How fast do you think the market for multivendor service is growing at present?

_____ % per annum

21. What is your USP? How do you believe your organisation can differentiate its multivendor service offerings from those of your competitors?

22. If possible, please give examples of recent multivendor service contracts:

Client	Description of contract	Contract partners?	Contract term (years)	Contract value (\$)

23. What plans do you have to extend your multivendor services capability?

24. To what extent do you believe your organisation will need to develop in the following ways (*rate on a scale of 1 to 5, where 1 = not at all, 5 = definite intention*)

Extend scope of equipment supported

Extend scope of software products supported

Specialise in a limited number of core products _____

Improve network service capability _____

Develop professional service/consultancy skills _____

Develop a full outsourcing/FM capability _____

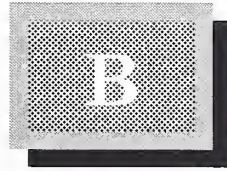
Adopt an industry focus (target specific verticals) _____

Improve your understanding of specific industries _____

Other (*Please specify*) _____

25. Is there anything more you would like to add on this subject?

Thankyou



Survey Details

This Appendix details the answers provided to INPUT by the vendors interviewed for this survey. In a few instances, details were either not provided or permission was not granted to publish the information.

The Appendix is arranged to follow the format of the Questionnaire as shown in Appendix A and as a reference for Chapters III and IV of this report.

A

Competitive Positioning

Question 1 asked the interviewee to identify the best description for their organisation. The responses are shown in Exhibit B-1.

Exhibit B-1

Company Orientation

Type	Companies	
Manufacturer	Comparex, Data General, Hewlett-Packard, IBM, NCR, Sequent, Siemens Nixdorf, Storage Technology, Sun Microsystems.	
IMO	Thomainfor.	
Independent Services Co.	ATM, Computeraid, Computervision, ICL Sorbus, Memorex Telex, ND ServiceTeam, Network Si, Wang.	
Other or Combination:	Amdahl	An IT Solutions Company.
	Bull	Still a manufacturer, mainly an independent service company and a desktop services provider.
	Digital	Both a manufacturer and an independent services company.
	Getronics	Both an IMO and an independent services company.
	Olivetti	Partly a manufacturer, but the Systems & Service Division positions itself as an independent services company.
	P&P	A multivendor reseller and IT services company.
	Unisys	A System Integrator.

Vendors were asked in Question 3 for their motivations for offering multivendor services. These were rated on a scale of 1 to 5, where:

1 = Not relevant

5 = Highly relevant

The results are shown in Exhibit B-2 and illustrated in Exhibit III-6.

Exhibit B-2

Motivations for offering Multivendor Services

Motivation	Mean
Customer demand	5.0
Counter decline in traditional maintenance revenues	3.1
Strategic method of entering new accounts	2.8
Way of improving profitability	2.8
Is the nature of the business, e.g. an IMO	4.2

The vendors interviewed were asked for the geographical scope of their multivendor capability.

The answers provided are shown in Exhibit B-3.

Exhibit B-3

Geographical Coverage

Coverage	Vendors
National	ATM*, Computeraid*, ND ServiceTeam*, Network Si, P&P.
European	Bull, Comparex, Getronics, Thomainfor.
Worldwide	Amdahl, Computervision, Data General, Digital, Granada Computer Services*, Hewlett-Packard, IBM, ICL Sorbus, Memorex Telex, NCR, Olivetti, Sequent, Siemens Nixdorf, Storage Technology, Sun Microsystems, Unisys, Wang.

***Notes**

- ATM Technology Management is part of Euroserv (see III-C) and can offer support throughout Europe.
- Computeraid is developing relationships with partners in order to offer pan-European support.

- Telenor Comma, sister company to ND ServiceTeam, offers support in many European countries, which is expanded due to its partnership with Thomainfor.
- Granada has offices throughout Europe and in the USA, but does not have a presence elsewhere in the world.
- The International Computer Group (ICG), who declined to be interviewed, can provide support throughout Europe.
- Where a world-wide or European presence is claimed, this does not infer that multivendor services are available in all countries.

Vendors were asked (Question 7) to define their target vertical markets. Where this information was provided, details are shown in Exhibit B-4.

A substantial number of those interviewed stated that their service offerings are not targeted at specific market sectors.

In response to Question 8 only Digital, Hewlett-Packard, ICL Sorbus and Thomainfor stated that they target the SoHo marketplace.

Exhibit B-4

Target Market Sectors

Company	None Specific	Banking & Finance	Local & Central Govt	Retail	Utilities	Transport	Other (details given)
Amdahl	✓						
ATM	✓						
Bull		✓	✓		✓		
Comparex	✓						
Computeraid		x	✓	✓	✓		
Computervision		✓					✓
Data General							✓
Digital				✓			✓
Getronics		✓	✓			✓	✓
Granada	✓						
Hewlett Packard	✓						
IBM	✓						
ICL Sorbus		✓	✓	✓			
Memorex Telex	✓						
NCR	✓						
ND ServiceTeam	✓						
Network Si		✓				✓	✓
Olivetti		✓	✓	✓			
P&P	✓						
Sequent	✓						
SNI		✓	✓	✓			
StorageTek		✓			✓		
Sun Microsystems	✓						
Thomainfor	✓						
Unisys		✓	✓	✓		✓	✓
Wang		✓	✓				✓

Others specified, include:

- Manufacturing Computervision and Wang
- Health Data General and Digital
- Oil, Gas & Energy Getronics and Network Si

- Transport Getronics and Unisys
- Telecommunications Data General
- Legal Wang
- Education Digital
- Imaging (if it is a sector) Data General

Note. The lack of a ✓ in any box does **not** imply that a vendor does not offer services in a specific sector, but simply that it either is not regarded as a strategic target or its service offerings are non-sector specific.

B

Content and Scope of Offer

Exhibit B-5 is based upon the answers provided to Question 5 of the questionnaire and refers to general multivendor support offerings, whereas the answers to Question 13, specifically concerning desktop services are shown in Exhibit B-6.

Exhibit B-5

Multivendor Support Offerings

Company	System Plan & Design	Training	H/W Maint	Sys S/W Supp	App S/W Supp	Net Install	Net Integration	Help Desk	Value Added Service
Amdahl	✓	✓	✓	✓			✓	✓	✓
ATM		✓	✓	✓	✓	✓	✓	✓	✓
Bull	✓	✓	✓	✓	✓	✓	✓	✓	✓
Comparex	✓	✓	✓	✓		✓	✓	L	✓
Computeraid	✓	✓	✓	✓	✓	✓	✓	✓	✓
Computervision	✓		✓	✓	✓	✓	✓		✓
Data General	✓		✓	✓		✓	✓		
Digital	✓	✓	✓	✓	✓	✓	✓	✓	✓
Getronics	✓	✓	✓	✓	✓	✓	✓	✓	✓
Granada		✓	✓	✓	✓	✓	✓	✓	✓
Hewlett Packard	✓	✓	✓	✓	✓	✓	✓	✓	✓
IBM	✓	✓	✓	✓	L	✓	✓	✓	✓
ICL Sorbus	✓	✓	✓	✓	✓	✓	✓	✓	✓
Memorex Telex	✓	✓	✓	✓	✓	✓	✓	✓	✓
NCR	✓	✓	✓	L		✓	✓	L	✓
ND ServiceTeam	✓	L	✓	✓	✓	✓	✓	✓	✓
Network Si	✓	✓	✓	✓	✓	✓	✓	✓	✓
Olivetti	✓	✓	✓	✓	✓	✓	✓	✓	✓
P&P	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sequent	L	L	✓	✓	✓	✓	✓	✓	✓
SNI	✓	✓	✓	✓	✓	✓	✓	✓	✓
StorageTek	✓	✓	✓	✓	L	✓	✓	✓	✓
Sun Microsystems	✓	✓	✓	✓		✓	✓	✓	✓
Thomainfor	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unisys	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wang	L	✓	✓	✓	✓	✓	✓	✓	✓

Key for Exhibits B5 and B-6:

- ✓ = Company offers this service
- L = Limited offering, e.g. NCR helpdesk is for retail applications only
- = No offering

Exhibit B-6

Desktop Service Offerings

Company	Planning	Training	H/W Maint	Sys S/W	App S/W	Net Install	Net Integ	Help Desk	Asset Mgt	Tech Refresh	Leasing	S/W Licence	Tech Disposal
Amdahl				No	desktop	services	in	Europe	✓		✓	✓	✓
ATM		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
Bull	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Comparex				No	desktop	services							
Computeraid	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Computervision				No	desktop	services							
Data General	✓	✓	✓	✓	✓	✓	✓	L	L	✓	✓	✓	✓
Digital	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Getronics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Granada	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hewlett Packard	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
IBM	✓	L	✓	✓	L	✓	✓	✓	✓	✓	✓	✓	✓
ICL Sorbus	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Memorex Telex	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NCR	✓	✓	✓	✓	L	✓	✓	L	✓	✓	✓	✓	✓
ND ServiceTeam	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Network Si	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Olivetti	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
P&P	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sequent	✓	✓	✓	✓	✓	✓	✓	✓	✓	L	✓	✓	L
SNI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
StorageTek	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sun Microsystems	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Thomainfor			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Unisys	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wang	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

As shown in Chapter IV-H, all of the companies interviewed offer some form of remote services, although the scope of the offerings in many cases is somewhat limited. Exhibit B-7 shows the remote service offerings of the companies interviewed.

Exhibit B-7

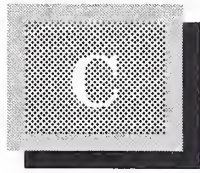
Remote Support Offerings

Company	Extent of Service	Bulletin Board	Problem Database	S/W Bug Fixes	S/W Updates	Remote Diagnostics	Remote Network Monitoring
Amdahl	L	L	✓	✓	✓	✓	
ATM	F	✓	✓	✓	✓	✓	✓
Bull	F	✓	✓	✓	✓	✓	✓
Comparex	L	✓	✓	✓		✓	✓
Computeraid	F	✓	✓	✓	✓	✓	✓
Computervision	F	✓	✓	✓	✓	✓	✓
Data General	L	✓	✓	✓		✓	✓
Digital	F	✓	✓	✓	✓	✓	✓
Getronics	F	✓	✓	✓	✓	✓	✓
Granada	L			✓	✓	✓	✓
Hewlett Packard	F	✓	✓	✓	✓	✓	✓
IBM	F	✓	✓	✓	✓	✓	✓
ICL Sorbus	L		✓	✓	✓	✓	✓
Memorex Telex	L	✓	L	✓	✓	✓	✓
NCR	L	L	L	✓	✓	✓	L
ND ServiceTeam	F	✓	✓	✓	✓	✓	✓
Network Si	L			✓	✓	✓	✓
Olivetti	F	✓	✓	✓	✓	✓	✓
P&P	L	✓	✓	L	L	L	L
Sequent	F	✓	✓	✓	✓	✓	✓
SNI	L	L	✓	✓	✓	✓	✓
StorageTek	F	✓	✓	✓	✓	✓	✓
Sun Microsystems	F	✓	✓	✓	✓	✓	✓
Thomainfor	F	✓	✓	✓	✓	✓	✓
Unisys	L	✓	✓	✓	L	✓	L
Wang	L		L	✓	✓	✓	✓

Key:

✓	=	Company offers this service
L	=	Limited offering
F	=	Full remote service
	=	No offering

Note: In many cases, services are under development and current limited services are due to be expanded in the future.



The Customer Services Market Defined

A

INPUT's View of The Customer Services Market

INPUT's view of the customer services market is illustrated in schematic form in Exhibit C-1. This exhibit illustrates the overall structure of the hardware products or equipment market for systems, and the relationship between customer services and the other segments of the equipment market.

Included within INPUT's definition of customer services are six service sectors:

- Equipment maintenance
- Environmental services
- Systems software support
- Education and training
- Professional services
- Business continuity services.

Excluded from INPUT's definition of the customer services market, as essentially product markets, are:

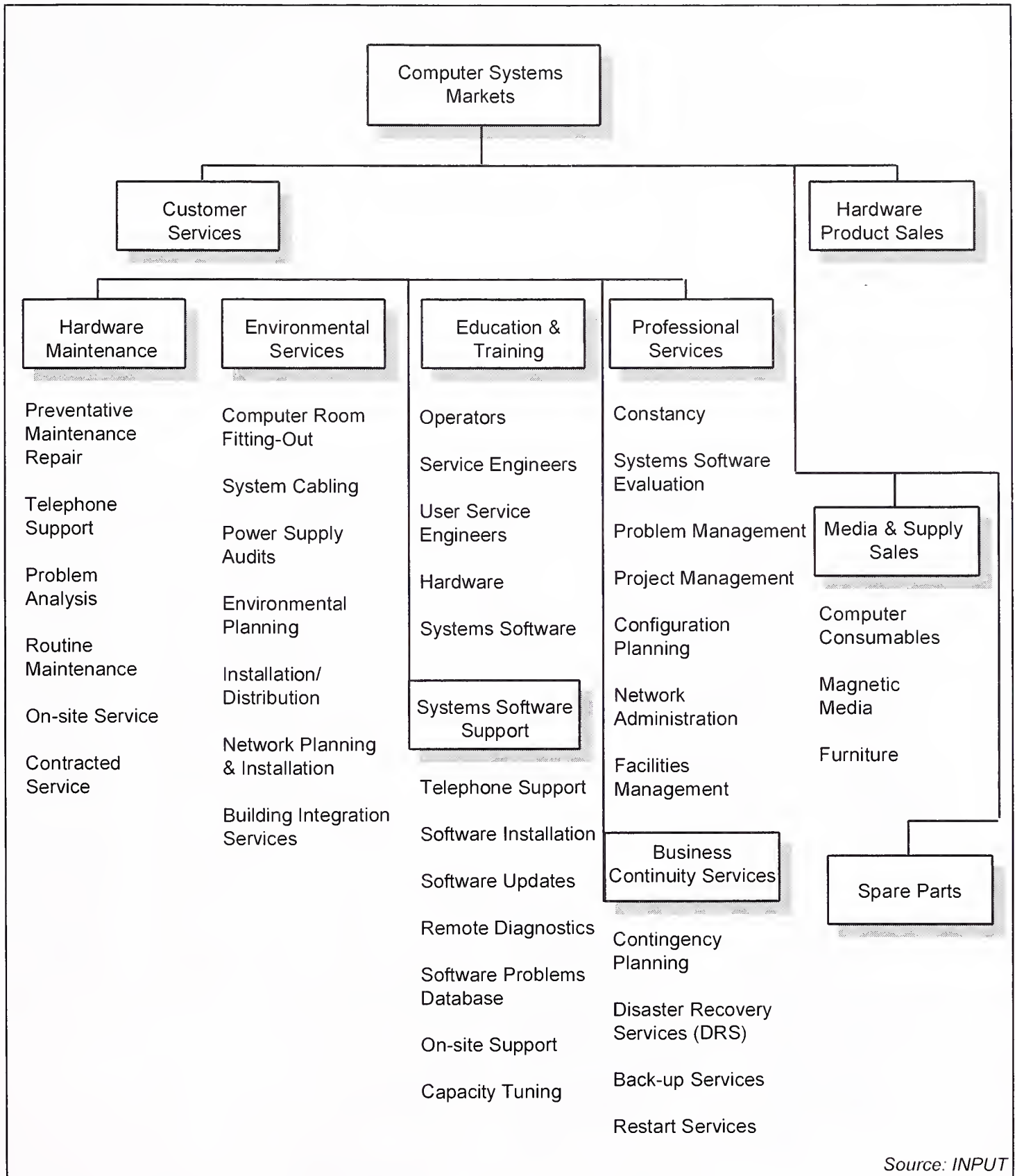
- Sales of spare parts
- Media and supplies sales

- Hardware product sales themselves.

Exhibit C-1 indicates the principal activities undertaken within each of the six service sectors. In each service sector, INPUT's definition of user expenditure includes only those services provided to users by an external organization on a chargeable basis. Services provided by subsidiaries or internal resources are considered unavailable for open tender. They are therefore excluded from the open market but included in the captive market potential.

Exhibit C-1

Customer Services Market Structure

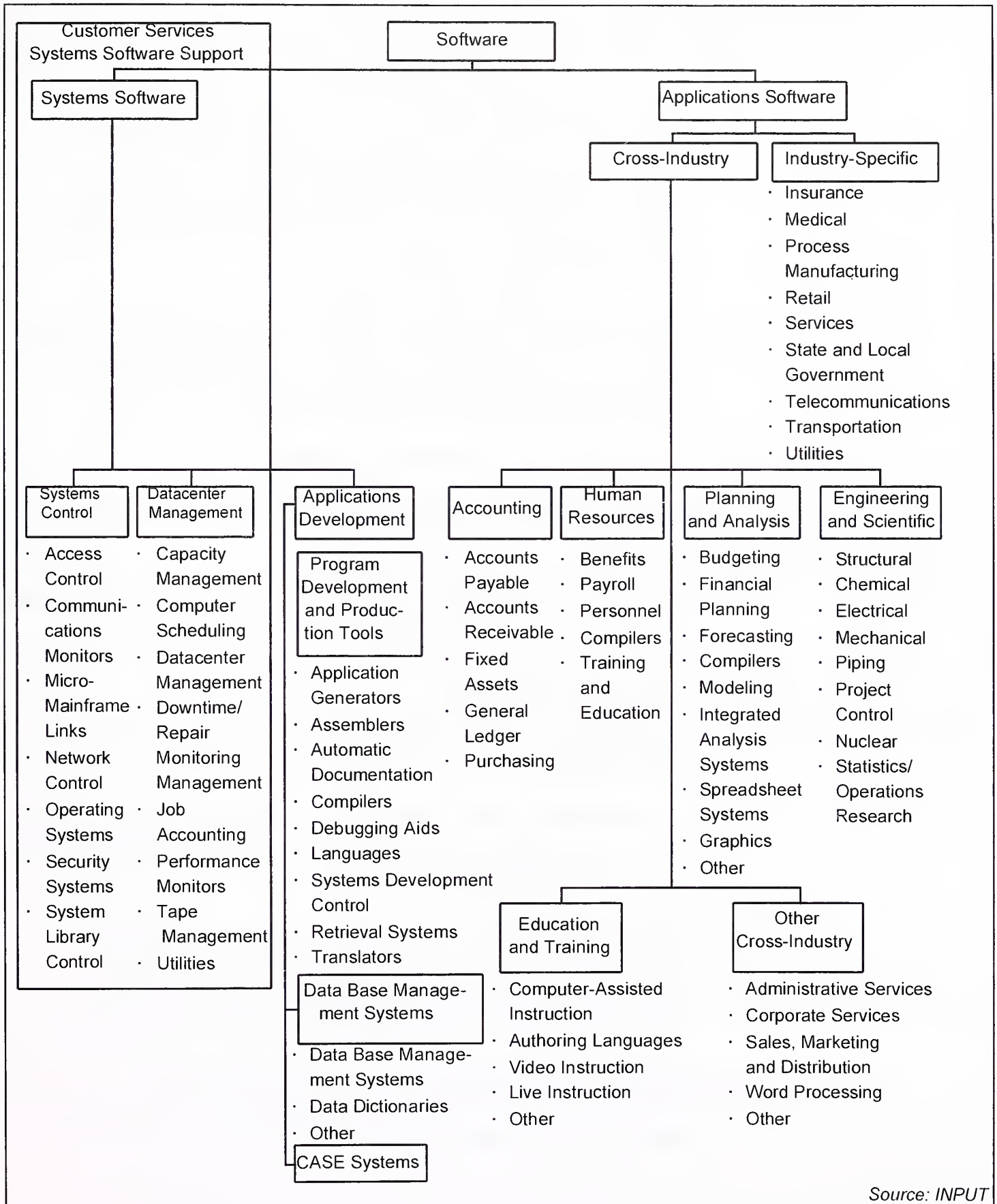


Source: INPUT

Software support activities that are included in the customer services market are those activities related to the support of systems software. Exhibit c-2 illustrates INPUT's definition of the software products market. Aspects of software support included in the customer services market are restricted to those areas highlighted in the exhibit with the rectangular box. They relate to system control and data centre management software products.

Exhibit C-2

Software Products Market Structure



Source: INPUT

B**Customer Services Sectors**

Customer services sectors are defined by INPUT as follows:

- **Equipment maintenance:** the repair or routine preventive maintenance of computer systems hardware or hardware components. Included are associated support activities such as telephone support, problem analysis and remote diagnostics. Contracts may be for one or more years; alternating repairs may be effected on an ad hoc basis.
- **Environmental services** are defined as all planning and implementation services which affect the environments in which computer platforms are expected to run. For these purposes, environment can mean any of the following:
 - The computer room fixtures and fittings
 - Cabling between computers and other devices in a system or network
 - Physical environment, such as: electrical power, air conditioning, water cooling, smoke or fire detection equipments
 - Network attachments
 - Buildings in which computers or network devices or terminals must reside.

Environmental services normally involve the installation, upgrade, repair or de-installation of some piece of equipment, but may be restricted to planning only.

- **Systems software service/support:** software maintenance activities that relate to systems software (not applications software). Included are associated support activities such as telephone support, problem analysis and software diagnostics.
- **Education and training:** all education and training expenditures for IT industry applications are included within the definition of customer services.

- **Professional services:** within the definition of customer services, this sector of the market refers only to those elements of professional services that are concerned with the support of the systems platform or network and its operating environment, including areas such as:
 - Consultancy
 - Network Administration
 - System Software Evaluation
 - Problems Management
 - Project Management
 - Configuration or Capacity Planning.

To distinguish them from environmental services, these professional services are normally restricted to planning, design or management services, without any installation of platform or ancillary equipment. It is important to acknowledge that these services are only part of the more widely defined professional services marketplace.

- **Business continuity services** include a number of service elements related to keeping a business running in the event of a major incident which temporarily puts its IT platform or network completely out of action. They include:
 - Planning for such a contingency
 - Disaster Recovery Services
 - Back-up services for magnetic or optical media
 - Restart services, covering all activities which contribute to reinstating on a permanent basis the platform or network which as suffered the major incident.

These services can be sold together in any combination or as free-standing services.

C

Customer Services Vendors

INPUT's definitions of the three primary categories of customer services vendor are as follows:

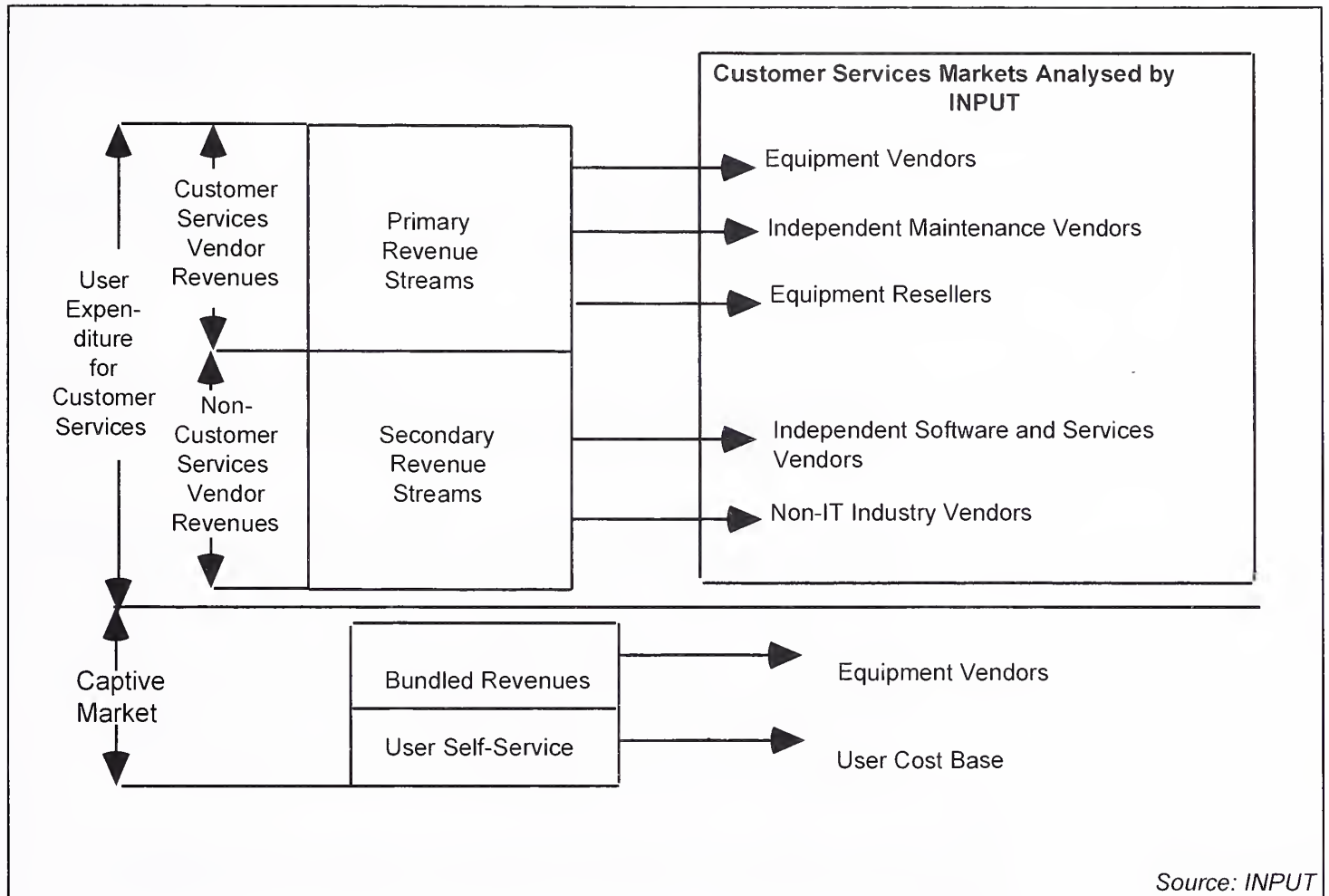
- **Equipment vendors** are defined as companies that manufacture computer hardware/equipment and may service equipment manufactured by themselves or other equipment manufacturers
- **Independent maintenance organisations (IMOs)** are defined as companies that service computer equipment and are independent of the manufacturer or agent who sold the equipment
- **Dealers and distributors** are defined as vendors that service equipment that is sold by them, either as an agent of the equipment manufacturer or as a value-added reseller (VAR).

D

Customer Services Revenue Streams

Exhibit C-3 provides a diagrammatic representation of the total customer services market. This model indicates the captive and non-captive revenue components of the total customer services market and the various revenue streams that combine to form the total market.

Exhibit C-3

Customer Services Revenue Streams

User expenditure for customer services forms that portion of the market where users are provided with vendor services for which they pay separately. This portion of the market sub-divides into two components:

- Customer services vendor revenues. This portion of the customer services market refers to vendors for whom customer services revenues are considered to be a primary revenue stream:
 - Equipment Vendors
 - Independent Maintenance Companies
 - The Dealer/Distributor portion of the indirect equipment resellers market.

- **Non-customer services vendor revenues** refer to user expenditure, for customer services, with vendors for whom customer services revenues are not considered to be a primary stream. This portion of the market results from the following activities:
 - The system integration (SI) and turnkey systems segments of the indirect equipment resellers market. In a minority of cases, these vendors provide service and support for the system platform
 - Software and services vendors whose primary source of revenue results from such items as custom software development will sometimes also provide systems support
 - Non-industry vendors such as building/construction companies or specialist product and building services companies that provide environmental services. Provision of these services is a secondary aspect to the vendor's main line of business; for example, a specialist air conditioning company might service many industry sectors, with systems for a whole range of applications besides computer room air-conditioning.

The captive portion of the customer services market relates to the provision of services for which the user does not pay separately. For example:

- Systems software support charges may be bundled as part of the software license fee rather than paid for separately by the user
- Users who wholly or partly provide their own customer services from the use of in-house resources. In this case the charges for services are accrued as an in-house cost and therefore do not result in external expenditure.

(Blank)

